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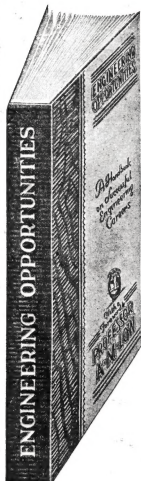


THE STORM

BY A. E. VAN VOGT
• FEBRUARY • 1944

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FEBRUARY 1944

Contents

Novellettes

THE STORM A. E. van Vogt . . . 2

The tremendous ship from Earth, singlehanded, was more than a match for all the military power of the Fifty Suns galaxy—but there was one thing in that galaxy that neither that ship nor any other could withstand—

SYMBIOTICA Eric Frank Russell . 26

The explorers had run into the machine civilization gone mad on Mechanistria, but this planet seemed safe. Not a machine anywhere, just jungles. And with their weapons, they didn't have to fear anything—

Short Stories

PARADOX LOST Fredric Brown . . . 48

An explanation—not guaranteed!—of what happened to the dinosaurs. Wacky, but it does seem to indicate the only way to really have fun is to be crazy!

WILLIE Frank Belknap Long 18

The master had forgotten, the city had forgotten and been forgotten, the people had become a savage tribe in the ages that had passed. But Willie—Willie had a different sort of memory.

SANCTUARY H. H. Holmes . . . 56

The Commandoman knew the Nazis were close on his heels; his one thought was to get some other place in a hurry. The professor had another idea—and the Villa had a ghost that haunted parties!

All stories in this magazine are fiction. No actual persons are designated either by name or character. Any similarity is coincidental.

THE STORM

By A. E. van VOGT

The combined military powers of all the people of that galaxy could not stand up to the tremendous might of the battleship of space. But there was one force their galaxy held that could smash that or any other ship!

OVER the miles and the years, the gases drifted. Waste matter from ten thousand suns, a diffuse miasm of spent explosions, of dead hell fires and the furies of a hundred million raging sunspots—formless, purposeless.

But it was the beginning.

Into the great dark the gases crept. Calcium was in them, and sodium, and hydrogen; and the speed of the drift varied up to twenty miles a second.

There was a timeless period while gravitation performed its function. The inchoate mass became masses. Great blobs of gas took a semblance of shape in widely separate areas, and moved on and on and on.

They came finally to where a thousand flaring seetee suns had long before doggedly "crossed the street" of the main stream of terrene suns. Had crossed, and left *their* excrement of gases.

The first clash quickened the vast worlds of gas. The electron haze of terrene plunged like spurred horses and sped deeper into the equally violently reacting positron haze of contraterrene. Instantly, the lighter orbital positrons and electrons went up in a blaze of hard radiation.

The storm was on.

The stripped seetee nuclei carried now terrific and unbalanced negative charges and repelled electrons, but tended to attract terrene atom nuclei. In their turn the stripped terrene nuclei attracted contraterrene.

Violent beyond all conception were the resulting cancellations of charges.

The two opposing masses heaved and spun in a cataclysm of partial adjustment. They had been heading in different directions. More and more they became one tangled, seething whirlpool.

The new course, uncertain at first, steadied and became a line drive through

the midnight heavens. On a front of nine light years, at a solid fraction of the velocity of light, the storm roared toward its destiny.

Suns were engulfed for half a hundred years—and left behind with only a hammering of cosmic rays to show that they had been the centers of otherwise invisible, impalpable atomic devastation.

In its four hundred and ninetieth Sidereal year, the storm intersected the orbit of a Nova at the flash moment.

It began to move!

On the three-dimensional map at weather headquarters on the planet Kaider III, the storm was colored orange. Which meant it was the biggest of the four hundred odd storms raging in the Fifty Suns region of the Lesser Magellanic Cloud.

It showed as an uneven splotch fronting at Latitude 473, Longitude 228, Center 190 parsecs, but that was a special Fifty Suns degree system which had no relation to the magnetic centre of the Magellanic Cloud as a whole.

The report about the Nova had not yet been registered on the map. When that happened the storm color would be changed to an angry red.

They had stopped looking at the map. Maltby stood with the councilors at the great window staring up at the Earth ship.

The machine was scarcely more than a dark sliver in the distant sky. But the sight of it seemed to hold a deadly fascination for the older men.

Maltby felt cool, determined, but also sardonic. It was funny, these—these people of the Fifty Suns in this hour of their danger calling upon *him*.

He unfocused his eyes from the ship, fixed his steely, laconic gaze on the plump, perspiring chairman of the Kaider III government—and, tensing his mind, forced the man

to look at him. The councilor, unaware of the compulsion, conscious only that he had turned, said:

"You understand your instructions, Captain Maltby?"

Maltby nodded. "I do."

The curt words must have evoked a vivid picture. The fat face rippled like palsied jelly and broke out in a new trickle of sweat.

"The worst part of it all," the man groaned, "is that the people of the ship found us by the wildest accident. They had run into one of our meteorite stations and captured its attendant. The attendant sent a general warning and then forced them to kill him before they could discover which of the fifty million suns of the Lesser Magellanic Cloud was us.

"Unfortunately, they did discover that he and the rest of us were all descendants of the robots who had escaped the massacre of the robots in the main galaxy fifteen thousand years ago.

"But they were baffled, and without a clue. They started home, stopping off at planets on the way on a chance basis. The seventh stop was us. Captain Maltby—"

The man looked almost beside himself. He shook. His face was as colorless as a white shroud. He went on hoarsely:

"Captain Maltby, you must not fail. They have asked for a meteorologist to guide them to Cassidor VII, where the central government is located. They mustn't reach there. You must drive them into the great storm at 473.

"We have commissioned you to do this for us because you have the two minds of the Mixed Men. We regret that we have not always fully appreciated your services in the past. But you must admit that, after the wars of the Mixed Men, it was natural that we should be careful about—"

Maltby cut off the lame apology. "Forget it," he said. "The Mixed Men are robots, too, and therefore as deeply involved, as I see it, as the Dellians and non-Dellians. Just what the Hidden Ones of my kind think, I don't know, nor do I care. I assure you I shall do my best to destroy this ship."

"Be careful!" the chairman urged anxiously. "This ship could destroy us, our planet, our sun in a single minute. We never dreamed that Earth could have gotten so far ahead of us and produced such a devastatingly powerful machine. After all, the non-Dellian robots and, of course, the Mixed Men among us are capable of research

work; the former have been laboring feverishly for thousands of years.

"But, finally, remember that you are not being asked to commit suicide. The battleship is absolutely invincible. Just how it will survive a real storm we were not told when we were shown around. But it will. What happens, however, is that everyone aboard becomes unconscious.

"As a Mixed Man you will be the first to revive. Our combined fleets will be waiting to board the ship the moment you open the doors. Is that clear?"

It had been clear the first time it was explained, but these non-Dellians had a habit of repeating themselves, as if thoughts kept growing vague in their minds. As Maltby closed the door of the great room behind him, one of the councilors said to his neighbor:

"Has he been told that the storm has gone Nova?"

The fat man overheard. He shook his head. His eyes gleamed as he said quietly: "No. After all, he is one of the Mixed Men. We can't trust him too far no matter what his record."

All morning the reports had come in. Some showed progress, some didn't. But her basic good humor was untouched by the failures.

The great reality was that her luck had held. She had found a planet of the robots. Only one planet so far, but—

Grand Captain Laurr smiled grimly. It wouldn't be long now. Being a supreme commander was a terrible business. But she had not shrunk from making the deadly threat: provide all required information, or the entire planet of Kaider III would be destroyed.

The information was coming in: Population of Kaider III two billion, one hundred million, two-fifths Dellian, three-fifths non-Dellian robots.

Dellians physically and mentally the higher type, but completely lacking in creative ability. Non-Dellians dominated in the research laboratories.

The forty-nine other suns whose planets were inhabited were called, in alphabetical order: Assora, Atmion, Bresp, Buraco, Cassidor, Corrab— They were located at (1) Assora: Latitude 931, Longitude 27, Center 201 parsecs; (2) Atmion—

It went on and on. Just before noon she noted with steely amusement that there was still nothing coming through from the

meteorology room, nothing at all about storms.

She made the proper connection and flung her words: "What's the matter, Lieutenant Cannons? Your assistants have been making prints and duplicates of various Kaider maps. Aren't you getting anything?"

The old meteorologist shook his head. "You will recall, noble lady, that when we captured that robot in space, he had time to send out a warning. Immediately on every Fifty Suns planet, all maps were despoiled, civilian meteorologists were placed aboard spaceships, that were stripped of receiving radios, with orders to go to a planet on a chance basis, and stay there for ten years.

"To my mind, all this was done before it was clearly grasped that their navy hadn't a chance against us. Now they are going to provide us with a naval meteorologist, but we shall have to depend on our lie detectors as to whether or not he is telling us the truth."

"I see." The woman smiled. "Have no fear. They don't dare oppose us openly. No doubt there is a plan being built up against us, but it cannot prevail now that we can take action to enforce our unalterable will. Whoever they send must tell us the truth. Let me know when he comes."

Lunch came, but she ate at her desk, watching the flashing pictures on the astro, listening to the murmur of voices, storing the facts, the general picture, into her brain.

"There's no doubt, Captain Turgess," she commented once, savagely, "that we're being lied to on a vast scale. But let it be so. We can use psychological tests to verify all the vital details.

"For the time being it is important that you relieve the fears of anyone you find it necessary to question. We must convince these people that Earth will accept them on an equal basis without bias or prejudice of any kind because of their robot orig—"

She bit her lip. "That's an ugly word, the worst kind of propaganda. We must eliminate it from our thoughts."

"I'm afraid," the officer shrugged, "not from our thoughts."

She stared at him, narrow-eyed, then cut him off angrily. A moment later she was talking into the general transmitter: "The word robot must not be used—by any of our personnel—under pain of fine—"

Switching off, she put a busy signal on her spare receiver, and called Psychology House. Lieutenant Neslor's face appeared on the plate.

"I heard your order just now, noble lady," the woman psychologist said. "I'm afraid, however, that we're dealing with the deepest instincts of the human animal—hatred or fear of the stranger, the alien.

"Excellency, we come from a long line of ancestors who, in their time, have felt superior to others because of some slight variation in the pigmentation of the skin. It is even recorded that the color of the eyes has influenced the egoistic in historical decisions. We have sailed into very deep waters, and it will be the crowning achievement of our life if we sail out in a satisfactory fashion."

There was an eager lilt in the psychologist's voice; and the grand captain experienced a responsive thrill of joy. If there was one thing she appreciated, it was the positive outlook, the kind of people who faced all obstacles short of the recognizably impossible with a youthful zest, a will to win. She was still smiling as she broke the connection.

The high thrill sagged. She sat cold with her problem. It was a problem. Hers. All aristocratic officers had *carte blanche* powers, and were expected to solve difficulties involving anything up to whole groups of planetary systems.

After a minute she dialed the meteorology room again.

"Lieutenant Cannons, when the meteorology officer of the Fifty Suns navy arrives, please employ the following tactics—"

Maltby waved dismissal to the driver of his car. The machine pulled away from the curb and Maltby stood frowning at the flaming energy barrier that barred farther progress along the street. Finally, he took another look at the Earth ship.

It was directly above him now that he had come so many miles across the city toward it. It was tremendously high up, a long, black torpedo shape almost lost in the mist of distance.

But high as it was it was still visibly bigger than anything ever seen by the Fifty Suns, an incredible creature of metal from a world so far away that almost, it had sunk to the status of myth.

Here was the reality. There would be tests, he thought, penetrating tests before they'd accept any orbit he planned. It wasn't that he doubted the ability of his double mind to overcome anything like that, but—

Well to remember that the frightful gap of years which separated the science of Earth from that of the Fifty Suns had already shown unpleasant surprises. Maltby

shook himself grimly and gave his full attention to the street ahead.

A fan-shaped pink fire spread skyward from two machines that stood in the center of the street. The flame was a very pale pink and completely transparent. It looked electronic, deadly.

Beyond it were men in glittering uniforms. A steady trickle of them moved in and out of buildings. About three blocks down the avenue a second curtain of pink fire flared up.

There seemed to be no attempt to guard the sides. The men he could see looked at ease, confident. There was murmured conversation, low laughter and—they weren't all men.

As Maltby walked forward, two fine-looking young women in uniform came down the steps of the nearest of the requisitioned buildings. One of the guards of the flame said something to them. There was a twin tinkle of silvery laughter. Still laughing, they strode off down the street.

It was suddenly exciting. There was an air about these people of far places, of tremendous and wonderful lands beyond the farthest horizons of the staid Fifty Suns.

He felt cold, then hot, then he glanced up at the fantastically big ship; and the chill came back. One ship, he thought, but so big, so mighty that thirty billion people didn't dare send their own fleets against it. They—

He grew aware that one of the brilliantly arrayed guards was staring at him. The man spoke into a wrist radio, and after a moment a second man broke off his conversation with a third soldier and came over. He stared through the flame barrier at Maltby.

"Is there anything you desire? Or are you just looking?"

He spoke English, curiously accented—but English! His manner was mild, almost gentle, cultured. The whole effect had a naturalness, an unalienness that was pleasing. After all, Maltby thought, he had never had the fear of these people that the others had. His very plan to defeat the ship was based upon his own fundamental belief that the robots were indestructible in the sense that no one could ever wipe them out completely.

Quietly, Maltby explained his presence.

"Oh, yes," the man nodded, "we've been expecting you. I'm to take you at once to the meteorological room of the ship. Just a moment—"

The flame barrier went down and Maltby was led into one of the buildings. There was a long corridor, and the transmitter that projected him into the ship must have been focused somewhere along it.

Because abruptly he was in a very large room. Maps floated in half a dozen anti-gravity pits. The walls shed light from millions of tiny point sources. And everywhere were tables with curved lines of very dim but sharply etched light on their surfaces.

Maltby's guide was nowhere to be seen. Coming toward him, however, was a tall, fine-looking old man. The oldster offered his hand.

"My name is Lieutenant Cannons, senior ship meteorologist. If you will sit down here we can plan an orbit and the ship can start moving within the hour. The grand captain is very anxious that we get started."

Maltby nodded casually. But he was stiff, alert. He stood quite still, feeling around with that acute second mind of his, his Dellian mind, for energy pressure that would show secret attempts to watch or control his mind.

But there was nothing like that.

He smiled finally, grimly. It was going to be as simple as this, was it? Like hell it was.

As he sat down, Maltby felt suddenly cozy and alive. The pure exhilaration of existence burned through him like a flame. He recognized the singing excitement for the battle thrill it was and felt a grim joy that for the first time in fifteen years he could do something about it.

During his long service in the Fifty Suns navy, he had faced hostility and suspicion because he was a Mixed Man. And always he had felt helpless, unable to do anything about it. Now, here was a far more basic hostility, however veiled, and a suspicion that must be like a burning fire.

And this time he could fight. He could look this skillfully voluble, friendly old man squarely in the eye and—

Friendly?

"It makes me smile sometimes," the old man was saying, "when I think of the unscientific aspects of the orbit we have to plan now. For instance, what is the time lag on storm reports out here?"

Maltby could not suppress a smile. So Lieutenant Cannons wanted to know things, did he? To give the man credit, it wasn't really a lame opening. The truth was, the

only way to ask a question was—well—to ask it. Maltby said:

"Oh, three, four months. Nothing unusual. Each space meteorologist takes about that length of time to check the bounds of the particular storm in his area, and then he reports, and we adjust our maps.

"Fortunately"—he pushed his second mind to the fore as he coolly spoke the great basic lie—"there are no major storms between the Kaidor and Cassidor suns."

He went on, sliding over the untruth like an eel breasting wet rock:

"However, several suns prevent a straight line movement. So if you would show me some of your orbits for twenty-five hundred light years, I'll make a selection of the best ones."

He wasn't, he realized instantly, going to slip over his main point as easily as that.

"No intervening storms?" the old man said. He pursed his lips. The fine lines in his long face seemed to deepen. He looked genuinely nonplused; and there was no doubt at all that he hadn't expected such a straightforward statement. "Hm-m-m, no storms. That does make it simple, doesn't it?"

He broke off. "You know, the important thing about two"—he hesitated over the word, then went on—"two people, who have been brought up in different cultures, under different scientific standards, is that they make sure they are discussing a subject from a common viewpoint.

"Space is so big. Even this comparatively small system of stars, the Lesser Magellanic Cloud, is so vast that it defies our reason. We on the battleship *Star Cluster* have spent ten years surveying it, and now we are able to say glibly that it comprises two hundred sixty billion cubic light years, and contains fifty millions of suns.

"We located the magnetic center of the Cloud, fixed our zero line from center to the great brightest star, S Doradus; and now, I suppose, there are people who would be fools enough to think we've got the system stowed away in our brainpans."

Maltby was silent because he himself was just such a fool. This was warning. He was being told in no uncertain terms that they were in a position to check any orbit he gave them with respect to all intervening suns.

It meant much more. It showed that Earth was on the verge of extending her tremendous sway to the Lesser Magellanic Cloud.

Destroying this ship now would provide the Fifty Suns with precious years during which they would have to decide what they intended to do.

But that would be all. Other ships would come; the inexorable pressure of the stupendous populations of the main galaxy would burst out even farther into space. Always under careful control, shepherded by mighty hosts of invincible battleships, the great transports would sweep into the Cloud, and every planet everywhere, robot or non-robot, would acknowledge Earth suzerainty.

Imperial Earth recognized no separate nations of any description anywhere. The robots, Dellian, non-Dellian and Mixed, would need every extra day, every hour; and it was lucky for them all that he was not basing his hope of destroying this ship on an orbit that would end inside a sun.

Their survey had magnetically placed all the suns for them. But they couldn't know about the storms. Not in ten years or in a hundred was it possible for one ship to locate possible storms in an area that involved twenty-five hundred light years of length.

Unless their psychologists could uncover the special qualities of his double brain, he had them. He grew aware that Lieutenant Cannons was manipulating the controls of the orbit table.

The lines of light on the surface flickered and shifted. Then settled like the balls in a game of chance. Maltby selected six that ran deep into the great storm. Ten minutes after that he felt the faint jar as the ship began to move. He stood up, frowning. Odd that they should act without *some* verification of his—

"This way," said the old man.

Maltby thought sharply: This couldn't be all. Any minute now they'd start on him and—

His thought ended.

He was in space. Far, far below was the receding planet of Kaider III. To one side gleamed the vast dark hull of the battleship; and on every other side, and up, and down were stars and the distances of dark space.

In spite of all his will, the shock was inexpressibly violent.

His active mind jerked. He staggered physically; and he would have fallen like a blindfolded creature except that, in the movement of trying to keep on his feet, he recognized that he was still on his feet.

His whole being steadied. Instinctively, he—tilted—his second mind awake, and

pushed it forward. Put its more mechanical and precise qualities, its Dellian strength, between his other self and whatever the human beings might be doing against him.

Somewhere in the mist of darkness and blazing stars, a woman's clear and resonant voice said:

"Well, Lieutenant Neslor, did the surprise yield any psychological fruits?"

The reply came from a second, an older-sounding woman's voice:

"After three seconds, noble lady, his resistance leaped to I. Q. 900. Which means they've sent us a Dellian. Your excellency, I thought you specifically asked that their representative be not a Dellian."

Maltby said swiftly into the night around him: "You're quite mistaken. I am not a Dellian. And I assure you that I will lower my resistance to zero if you desire. I reacted instinctively to surprise, naturally enough."

There was a click. The illusion of space and stars snapped out of existence. Maltby saw what he had begun to suspect, that he was, had been all the time, in the meteorology room.

Nearby stood the old man, a thin smile on his lined face. On a raised dais, partly hidden behind a long instrument board, sat a handsome young woman. It was the old man who spoke. He said in a stately voice:

"You are in the presence of Grand Captain, the Right Honorable Gloria Cecily, the Lady Laurr of Noble Laurr. Conduct yourself accordingly."

Maltby bowed but he said nothing. The grand captain frowned at him, impressed by his appearance. Tall, magnificent-looking body—strong, supremely intelligent face. In a single flash she noted all the characteristics common to the first-class human being and robot.

These people might be more dangerous than she had thought. She said with unnatural sharpness for her:

"As you know, we have to question you. We would prefer that you do not take offense. You have told us that Cassidor VII, the chief planet of the Fifty Suns, is twenty-five hundred light years from here. Normally, we would spend more than sixty years *feeling* our way across such an immense gap of uncharted, star-filled space. But you have given us a choice of orbits.

"We must make sure those orbits are honest, offered without guile or harmful purpose. To that end we have to ask you to open your mind and answer our questions

under the strictest psychological surveillance."

"I have orders," said Maltby, "to co-operate with you in every way."

He had wondered how he would feel, now that the hour of decision was upon him. But there was nothing unnatural. His body was a little stiffer, but his minds—

He withdrew his *self* into the background and left his Dellian mind to confront all the questions that came. His Dellian mind that he had deliberately kept apart from his thoughts. That curious mind, which had no will of its own, but which, by remote control, reacted with the full power of an I. Q. of 191.

Sometimes, he marvelled himself at that second mind of his. It had no creative ability, but its memory was machinelike, and its resistance to outside pressure was, as the woman psychologist had so swiftly analyzed, over nine hundred. To be exact, the equivalent of I. Q. 917.

"What is your name?"

That was the way it began: His name, distinction— He answered everything quietly, positively, without hesitation. When he had finished, when he had sworn to the truth of every word about the storms, there was a long moment of dead silence. And then a middle-aged woman stepped out of the nearby wall.

She came over and motioned him into a chair. When he was seated she tilted his head and began to examine it. She did it gently; her fingers were caressing as a lover's. But when she looked up she said sharply:

"You're not a Dellian or a non-Dellian. And the molecular structure of your brain and body is the most curious I've ever seen. All the molecules are twins. I saw a similar arrangement once in an artificial electronic structure where an attempt was being made to balance an unstable electronic structure. The parallel isn't exact, but—mm-m-m, I must try to remember what the end result was of that experiment."

She broke off: "What is your explanation? What are you?"

Maltby sighed. He had determined to tell only the one main lie. Not that it mattered so far as his double brain was concerned. But untruths effected slight variations in blood pressure, created neural spasms and disturbed muscular integration. He couldn't take the risk of even one more than was absolutely necessary.

"I'm a Mixed Man," he explained. He described briefly how the cross between the Dellian and non-Dellian, so long impossible, had finally been brought about a hundred years before. The use of cold and pressure—

"Just a moment," said the psychologist.

She disappeared. When she stepped again out of the wall transmitter, she was thoughtful.

"He seems to be telling the truth," she confessed, almost reluctantly.

"What is this?" snapped the grand captain. "Ever since we ran into that first citizen of the Fifty Suns, the psychology department has qualified every statement it issues. I thought psychology was the only perfect science. Either he is telling the truth or he isn't."

The older woman looked unhappy. She stared very hard at Maltby, seemed baffled by his cool gaze, and finally faced her superior, said:

"It's that double molecule structure of his brain. Except for that, I see no reason why you shouldn't order full acceleration."

The grand captain smiled. "I shall have Captain Maltby to dinner tonight. I'm sure he will co-operate then with any further studies you may be prepared to make at that time. Meanwhile I think—"

She spoke into a communicator: "Central engines, step up to half light year a minute on the following orbit—"

Maltby listened, estimating with his Dellian mind. Half a light year a minute; it would take a while to attain that speed, but—in eight hours they'd strike the storm.

In eight hours he'd be having dinner with the grand captain.

Eight hours!

The full flood of a contraterrene Nova impinging upon terrene gases already injured by seetee gone insane—that was the new, greater storm.

The exploding, giant sun added weight to the diffuse, maddened thing. And it added something far more deadly.

Speed! From peak to peak of velocity the tumult of ultrafire leaped. The swifter crags of the storm danced and burned with an absolutely hellish fury.

The sequence of action was rapid almost beyond the bearance of matter. First raced the light of the Nova, blazing its warning at more than a hundred and eighty-six-thousand miles a second to all who knew that it flashed from the edge of an interstellar storm.

But the advance glare of warning was nullified by the colossal speed of the storm. For weeks and months it drove through the vast night at a velocity that was only a bare measure short of that of light itself.

The dinner dishes had been cleared away. Maltby was thinking: In half an hour—*half an hour!*

He was wondering shakily just what did happen to a battleship suddenly confronted by thousands of gravities of deceleration. Aloud he was saying:

"My day? I spent it in the library. Mainly, I was interested in the recent history of Earth's interstellar colonization. I'm curious as to what is done with groups like the Mixed Men. I mentioned to you that, after the war in which they were defeated largely because there was so few of them, the Mixed Men hid themselves from the Fifty Suns. I was one of the captured children who—"

There was an interruption, a cry from the wall communicator: "*Noble lady, I've solved it!*"

A moment fled before Maltby recognized the strained voice of the woman psychologist. He had almost forgotten that she was supposed to be studying him. Her next words chilled him:

"Two minds! I thought of it a little while ago and rigged up a twin watching device. Ask him, ask him the question about the storms. Meanwhile stop the ship. At once!"

Maltby's dark gaze clashed hard with the steely, narrowed eyes of the grand captain. Without hesitation he concentrated his two minds on her, forced her to say:

"Don't be silly, lieutenant. One person can't have two brains. Explain yourself further."

His hope was delay. They had ten minutes in which they could save themselves. He must waste every second of that time, resist all their efforts, try to control the situation. If only his special three-dimensional hypnotism worked through communicators—

It didn't. Lines of light leaped at him from the wall and crisscrossed his body, held him in his chair like so many unbreakable cables. Even as he was bound hand and foot by palpable energy, a second complex of forces built up before his face, barred his thought pressure from the grand captain, and finally coned over his head like a dunce cap.

He was caught as neatly as if a dozen men had swarmed with their strength and

weight over his body. Maltby relaxed and laughed.

"Too late," he taunted. "It'll take at least an hour for this ship to reduce to a safe speed; and at this velocity you can't turn aside in time to avoid the greatest storm in this part of the Universe."

That wasn't strictly true. There was still time and room to sheer off before the advancing storm in any of the fronting directions. The impossibility was to turn toward the storm's tail or its great, bulging sides.

His thought was interrupted by the first cry from the young woman; a piercing cry: "Central engines! Reduce speed! Emergency!"

There was a jar that shook the walls and a pressure that tore at his muscles. Maltby adjusted and then stared across the table at the grand captain. She was smiling, a frozen mask of a smile; and she said from between clenched teeth:

"Lieutenant Neslor, use any means physical or otherwise, but make him talk. There must be something."

"His second mind is the key," the psychologist's voice came. It's not Dellian. It has only normal resistance. I shall subject it to the greatest concentration of conditioning ever focused on a human brain, using the two basics: sex and logic. I shall have to use you, noble lady, as the object of his affections."

"Hurry!" said the young woman. Her voice was like a metal bar.

Maltby sat in a mist, mental and physical. Deep in his mind was awareness that he was an entity, and that irresistible machines were striving to mold his thought.

He resisted. The resistance was as strong as his life, as intense as all the billions and quadrillions of impulses that had shaped his being, could make it.

But the outside thought, the pressure, grew stronger. How silly of him to resist Earth—when this lovely woman of Earth loved him, loved him, loved him. Glorious was that civilization of Earth and the main galaxy. Three hundred million billion people. The very first contact would rejuvenate the Fifty Suns. How lovely she is; I must save her. She means everything to me.

As from a great distance, he began to hear his own voice, explaining what must be done, just how the ship must be turned, in what direction, how much time there was. He tried to stop himself, but inexorably his

voice went on, mouthing the words that spelled defeat for the Fifty Suns.

The mist began to fade. The terrible pressure eased from his straining mind. The damning stream of words ceased to pour from his lips. He sat up shakily, conscious that the energy cords and the energy cap had been withdrawn from his body. He heard the grand captain say into a communicator:

"By making a point 0100 turn we shall miss the storm by seven light weeks. I admit it is an appallingly sharp curve, but I feel that we should have at least that much leeway."

She turned and stared at Maltby: "Prepare yourself. At half a light year a minute even a hundredth of a degree turn makes some people black out."

"Not me," said Maltby, and tensed his Dellian muscles.

She fainted three times during the next four minutes as he sat there watching her. But each time she came to within seconds.

"We human beings," she said wanly, finally, "are a poor lot. But at least we know how to endure."

The terrible minutes dragged. And dragged. Maltby began to feel the strain of that infinitesimal turn. He thought at last: Space! How could these people ever hope to survive a direct hit on a storm?

Abruptly, it was over; a man's voice said quietly: "We have followed the prescribed course, noble lady, and are now out of danger—"

He broke off with a shout: "Captain, the light of a Nova sun has just flashed from the direction of the storm. We—"

In those minutes before disaster struck, the battleship *Star Cluster*, glowed like an immense and brilliant jewel. The warning glare from the Nova set off an incredible roar of emergency clamor through all of her hundred and twenty decks.

From end to end her lights flicked on. They burned row by row straight across her four thousand feet of length with the hard tinkle of cut gems. In the reflection of that light, the black mountain that was her hull looked like the fabulous planet of Cassidor, her destination, as sun at night from a far darkness, sown with diamond shining cities.

Silent as a ghost, grand and wonderful beyond all imagination, glorious in her power, the great ship slid through the blackness along the special river of time and space which was her plotted course.

Even as she rode into the storm there was nothing visible. The space ahead looked as clear as any vacuum. So tenuous were the gases that made up the storm that the ship would not even have been aware of them if it had been traveling at atomic speeds.

Violent the disintegration of matter in that storm might be, and the sole source of cosmic rays the hardest energy in the known universe. But the immense, the cataclysmic danger to the *Star Cluster* was a direct result of her own terrible velocity.

If she had had time to slow, the storm would have meant nothing.

Striking that mass of gas at half a light year a minute was like running into an unending solid wall. The great ship shuddered in every plate as the deceleration tore at her gigantic strength.

In seconds she had run the gamut of all the recoil system her designers had planned for her as a unit.

She began to break up.

And still everything was according to the original purpose of the superb engineering firm that had built her. The limit of unit strain reached, she dissolved into her nine thousand separate sections.

Streamlined needles of metal were those sections, four hundred feet long, forty feet wide; silverlike shapes that sinuated cunningly through the gases, letting the pressure of them slide off their smooth hides.

But it wasn't enough. Metal groaned from the torture of deceleration. In the deceleration chambers, men and women lay at the bare edge of consciousness, enduring agony that seemed on the verge of being beyond endurance.

Hundreds of the sections careened into each other in spite of automatic screens, and instantaneously fused into white-hot coffins.

And still, in spite of the hideously maintained velocity, that mass of gases was not bridged; light years of thickness had still to be covered.

For those sections that remained, once more all the limits of human strength were reached. The final action was chemical, directly on the human bodies that remained of the original thirty thousand. Those bodies for whose sole benefit all the marvelous safety devices had been conceived and constructed, the poor, fragile, human beings who through all the ages had persisted in dying under normal conditions from a pressure of something less than fifteen gravities.

The prompt reaction of the automatics in

rolling back every floor, and plunging every person into the deceleration chambers of each section—that saving reaction was abruptly augmented as the deceleration chamber was flooded by a special type of gas.

Wet was that gas, and clinging. It settled thickly on the clothes of the humans, soaked through to the skin and *through* the skin, into every part of the body.

Sleep came gently, and with it a wonderful relaxation. The blood grew immune to shock; muscles that, in a minute before, had been drawn with anguish—loosened; the brain impregnated with life-giving chemicals that relieved it of all shortages remained untroubled even by dreams.

Everybody grew enormously flexible to gravitation pressures—a hundred—a hundred and fifty gravities of deceleration; and still the life force clung.

The great heart of the Universe beat on. The storm roared along its inescapable artery, creating the radiance of life, purging the dark of its poisons—and at last the tiny ships in their separate courses burst its great bounds.

They began to come together, to seek each other, as if among them there was an irresistible passion that demanded intimacy of union.

Automatically, they slid into their old positions; the battleship *Star Cluster* began again to take form—but there were gaps. Segments destroyed, and segments lost.

On the third day Acting Grand Captain Rutgers called the surviving captains to the forward bridge, where he was temporarily making his headquarters. After the conference a communique was issued to the crew:

At 008 hours this morning a message was received from Grand Captain, the Right Honorable Gloria Cecily, the Lady Laurr of Noble Laurr, I. C., C. M., G. K. R. She has been forced down on the planet of a yellow-white sun. Her ship crashed on landing, and is unrepairable. As all communication with her has been by nondirectional sub-space radio, and as it will be utterly impossible to locate such an ordinary type sun among so many millions of other suns, the Captains in Session regret to report that our noble lady's name must now be added to that longest of all lists of naval casualties: the list of those who have been lost forever on active duty.

The admiralty lights will burn blue until further notice.

Her back was to him as he approached.

Maltby hesitated, then tensed his mind, and held her there beside the section of ship that had been the main bridge of the *Star Cluster*.

The long metal shape lay half buried in the marshy ground of the great valley, its lower end jutting down into the shimmering deep yellowish black waters of a sluggish river.

Maltby paused a few feet from the tall, slim woman, and, still holding her unaware of him, examined once again the environment that was to be their life.

The fine spray of dark rain that had dogged his exploration walk was retreating over the yellow rim of valley to the "west."

As he watched, a small yellow sun burst out from behind a curtain of dark, ochereous clouds and glared at him brilliantly. Below it an expanse of jungle glinted strangely brown and yellow.

Everywhere was that dark-brown and intense, almost liquid yellow.

Maltby sighed—and turned his attention to the woman, willed her not to see him as he walked around in front of her.

He had given a great deal of thought to the Right Honourable Gloria Cecily during his walk. Basically, of course, the problem of a man and a woman who were destined to live the rest of their lives together, alone, on a remote planet, was very simple. Particularly in view of the fact that one of the two had been conditioned to be in love with the other.

Maltby smiled grimly. He could appreciate the artificial origin of that love. But that didn't dispose of the profound fact of it.

The conditioning machine had struck to his very core. Unfortunately, it had not touched her at all; and two days of being alone with her had brought out one reality:

The Lady Laurr of Noble Laurr was not even remotely thinking of yielding herself to the normal requirements of the situation.

It was time that she was made aware, not because an early solution was necessary or even desirable, but because she had to realize that the problem existed.

He stepped forward and took her in his arms.

She was a tall, graceful woman; she fitted into his embrace as if she belonged there; and, because his control of her made her return the kiss, its warmth had an effect beyond his intention.

He had intended to free her mind in the middle of the kiss.

He didn't.

When he finally released her, it was only a physical release. Her mind was still completely under his domination.

There was a metal chair that had been set just outside one of the doors. Maltby walked over, sank into it and stared up at the grand captain.

He felt shaken. The flame of desire that had leaped through him was a telling tribute to the conditioning he had undergone. But it was entirely beyond his previous analysis of the intensity of his own feelings.

He had thought he was in full control of himself, and he wasn't. Somehow, the sardonicism, the half detachment, the objectivity, which he had fancied was the keynote of his own reaction to this situation, didn't apply at all.

The conditioning machine had been thorough.

He loved this woman with such a violence that the mere touch of her was enough to disconnect his will from operations immediately following.

His heart grew quieter; he studied her with a semblance of detachment.

She was lovely in a handsome fashion; though almost all robot women of the Dellian race were better-looking. Her lips, while medium full, were somehow a trifle cruel; and there was a quality in her eyes that accentuated that cruelty.

There were built-up emotions in this woman that would not surrender easily to the idea of being marooned for life on an unknown planet.

It was something he would have to think over. Until then—

Maltby sighed. And released her from the three-dimensional hypnotic spell that his two minds had imposed on her.

He had taken the precaution of turning her away from him. He watched her curiously as she stood, back to him, for a moment, very still. Then she walked over to a little knob of trees above the springy, soggy marsh land.

She climbed up it and gazed in the direction from which he had come a few minutes before. Evidently looking for him.

She turned finally, shaded her face against the yellow brightness of the sinking sun, came down from the hillock and saw him.

She stopped; her eyes narrowed. She walked over slowly. She said with an odd edge in her voice:

"You came very quietly. You must have circled and walked in from the west."

"No," said Maltby deliberately, "I stayed in the east."

She seemed to consider that. She was silent, her lean face creased into a frown. She pressed her lips together, finally; there was a bruise there that must have hurt, for she winced, then she said:

"What did you discover? Did you find any—"

She stopped. Consciousness of the bruise on her lip must have penetrated at that moment. Her hand jerked up, her fingers touched the tender spot. Her eyes came alive with the violence of her comprehension. Before she could speak, Maltby said:

"Yes, you're quite right."

She stood looking at him. Her stormy gaze quietened. She said finally, in a stony voice:

"If you try that again I shall feel justified in shooting you."

Maltby shook his head. He said unsmiling:

"And spend the rest of your life here alone? You'd go mad."

He saw instantly that her basic anger was too great for that kind of logic. He went on swiftly:

"Besides, you'd have to shoot me in the back. I have no doubt you could do that in the line of duty. But not for personal reasons."

Her compressed lips—separated. To his amazement there were suddenly tears in her eyes. Anger tears, obviously. But tears!

She stepped forward with a quick movement and slapped his face.

"You robot!" she sobbed.

Maltby stared at her ruefully; then he laughed. Finally he said, a trace of mockery in his tone:

"If I remember rightly, the lady who just spoke is the same one who delivered a ringing radio address to all the planets of the Fifty Suns swearing that in fifteen thousand years Earth people had forgotten all their prejudices against robots.

"Is it possible," he finished, "that the problem on closer investigation is proving more difficult?"

There was no answer. The Honorable Gloria Cecily brushed past him and disappeared into the interior of the ship.

She came out again a few minutes later.

Her expression was more serene; Maltby noted that she had removed all trace of the

tears. She looked at him steadily, said:

"What did you discover when you were out? I've been delaying my call to the ship till you returned."

Maltby said: "I thought they asked you to call at 010 hours."

The woman shrugged; and there was an arrogant note in her voice as she replied:

"They'll take my calls when I make them. Did you find any sign of intelligent life?"

Maltby allowed himself brief pity for a human being who had as many shocks still to absorb as had Grand Captain Laurr.

One of the books he had read while aboard the battleship about colonists of remote planets had dealt very specifically with castaways.

He shook himself and began his description. "Mostly marsh land in the valley and there's jungle, very old. Even some of the trees are immense, though sections show no growth rings—some interesting beasts and a four-legged, two-armed thing that watched me from a distance. It carried a spear but it was too far away for me to use my hypnotism on it. There must be a village somewhere, perhaps on the valley rim. My idea is that during the next months I'll cut the ship into small sections and transport it to drier ground.

"I would say that we have the following information to offer the ship's scientists: We're on a planet of a G-type sun. The sun must be larger than the average yellow-white type and have a larger surface temperature.

"It must be larger and hotter because, though it's far away, it is hot enough to keep the northern hemisphere of this planet in a semitropical condition.

"The sun was quite a bit north at mid-day, but now its swinging back to the south. I'd say offhand the planet must be tilted at about forty degrees, which means there's a cold winter coming up, though that doesn't fit with the age and type of the vegetation."

The Lady Laurr was frowning. "It doesn't seem very helpful," she said. "But, of course, I'm only an executive."

"And I'm only a meteorologist."

"Exactly. Come in. Perhaps my astrophysicist can make something of it."

"Your astrophysicist!" said Maltby. But he didn't say it aloud.

He followed her into the segment of ship and closed the door.

Maltby examined the interior of the main

bridge with a wry smile as the young woman seated herself before the astroplate.

The very imposing glitter of the instrument board that occupied one entire wall was ironical now. All the machines it had controlled were far away in space. Once it had dominated the entire Lesser Magellanic Cloud; now his own hand gun was a more potent instrument.

He grew aware that Lady Laurr was looking up at him.

"I don't understand it," she said. "They don't answer."

"Perhaps"—Maltby could not keep the faint sarcasm out of his tone—"perhaps they may really have had a good reason for wanting you to call at 010 hours."

The woman made a faint exasperated movement with her facial muscles but she did not answer. Maltby went on coolly:

"After all, it doesn't matter. They're only going through routine motions, the idea being to leave no loophole for rescue unlooked through. I can't even imagine the kind of miracle it would take for anybody to find us."

The woman seemed not to have heard. She said, frowning:

"How is it that we've never heard a single Fifty Suns broadcast? I intended to ask about that before. Not once during our ten years in the Lesser Cloud did we catch so much as a whisper of radio energy."

Maltby shrugged. "All radios operate on an extremely complicated variable wave length—changes every twentieth of a second. Your instruments would register a tick once in every ten minutes, and—"

He was cut off by a voice from the astroplate. A man's face was there—Acting Grand Captain Rutgers.

"Oh, there you are, captain," the woman said. "What kept you?"

"We're in the process of landing our forces on Cassidor VII," was the reply. "As you know, regulations require that the grand captain—"

"Oh, yes. Are you free now?"

"No. I've taken a moment to see that everything is right with you, and then I'll switch you over to Captain Planston."

"How is the landing proceeding?"

"Perfectly. We have made contact with the government. They seem resigned. But now I must leave. Goodby, my lady."

His face flickered and was gone. The plate went blank. It was about as curt a greeting as anybody had ever received. But Maltby, sunk in his own gloom, scarcely noticed.

So it was all over. The desperate scheming of the Fifty Suns leaders, his own attempt to destroy the great battleship, proved futile against an invincible foe.

For a moment he felt very close to the defeat, with all its implications. Consciousness came finally that the fight no longer mattered in his life. But the knowledge failed to shake his dark mood.

He saw that the Right Honorable Gloria Cecily had an expression of mixed elation and annoyance on her fine, strong face; and there was no doubt that she didn't *feel*—disconnected—from the mighty events out there in space. Nor had she missed the implications of the abruptness of the interview.

The astroplate grew bright and a face appeared on it—one that Maltby hadn't seen before. It was of a heavy-jowled, oldish man with a ponderous voice that said:

"Privilege your ladyship—hope we can find something that will enable us to make a rescue. Never give up hope, I say, until the last nail's driven in your coffin."

He chuckled; and the woman said: "Captain Maltby will give you all the information he has, then no doubt you can give him some advice, Captain Planston. Neither he nor I, unfortunately, are astrophysicists."

"Can't be experts on every subject," Captain Planston puffed. "Er, Captain Maltby, what do you know?"

Maltby gave his information briefly, then waited while the other gave instructions. There wasn't much:

"Find out length of seasons. Interested in that yellow effect of the sunlight and the deep brown. Take the following photographs, using ortho-sensitive film—use three dyes, a red sensitive, a blue and a yellow. Take a spectrum reading—what I want to check on is that maybe you've got a strong blue sun there, with the ultraviolet barred by a heavy atmosphere, and all the heat and light coming in on the yellow band."

"I'm not offering much hope, mind you—the Lesser Cloud is packed with blue suns—five hundred thousand of them brighter than Sirius."

"Finally, get that season information from the natives. Make a point of it. Good-by!"

The native was wary. He persisted in retreating elusively into the jungle; and his four legs gave him a speed advantage of which he seemed to be aware. For he kept coming back, tantalizingly.

The woman watched with amusement, then exasperation.

"Perhaps," she suggested, "if we separated, and I drove him toward you?"

She saw the frown on the man's face as Maltby nodded reluctantly. His voice was strong, tense.

"He's leading us into an ambush. Turn on the sensitives in your helmet and carry your gun. Don't be too hasty about firing, but don't hesitate in a crisis. A spear can make an ugly wound; and we haven't got the best facilities for handling anything like that.

His orders brought a momentary irritation. He seemed not to be aware that she was as conscious as he of the requirements of the situation.

The Right Honorable Gloria sighed. If they had to stay on this planet there would have to be some major psychological adjustments, and not—she thought grimly—only by herself.

"Now!" said Maltby beside her, swiftly. "Notice the way the ravine splits in two. I came this far yesterday and they join about two hundred yards farther on. He's gone up the left fork. I'll take the right. You stop here, let him come back to see what's happened, then drive him on."

He was gone, like a shadow, along a dark path that wound under thick foliage.

Silence settled.

She waited. After a minute she felt herself alone in a yellow and black world that had been lifeless since time began.

She thought: This was what Maltby had meant yesterday when he had said she wouldn't dare shoot him—and remain alone. It hadn't penetrated then.

It did now. Alone, on a nameless planet of a mediocre sun, one woman waking up every morning on a moldering ship that rested its unliving metal shape on a dark, muggy, yellow marsh land.

She stood somber. There was no doubt that the problem of robot and human being would have to be solved here as well as out there.

A sound pulled her out of her gloom. As she watched, abruptly more alert, a catlike head peered cautiously from a line of bushes a hundred yards away across the clearing.

It was an interesting head; its ferocity not the least of its fascinating qualities. The yellowish body was invisible now in the underbrush, but she had caught enough glimpses of it earlier to recognize that it was the CC type, of the almost universal Centaur

family. Its body was evenly balanced between its hind and forelegs.

It watched her, and its great glistening black eyes were round with puzzlement. Its head twisted from side to side, obviously searching for Maltby.

She waved her gun and walked forward. Instantly the creature disappeared. She could hear it with her sensitives, running into distance. Abruptly, it slowed; then there was no sound at all.

"He's got it," she thought.

She felt impressed. These two-brained Mixed Men, she thought, were bold and capable. It would really be too bad if anti-robot prejudice prevented them from being absorbed into the galactic civilization of Imperial Earth.

She watched him a few minutes later, using the block system of communication with the creature. Maltby looked up, saw her. He shook his head as if puzzled.

"He says it's always been warm like this, and that he's been alive for thirteen hundred moons. And that a moon is forty suns—forty days. He wants us to come up a little farther along this valley, but that's too transparent for comfort. Our move is to make a cautious, friendly gesture, and—"

He stopped short. Before she could even realize anything was wrong, her mind was caught, her muscles galvanized. She was thrown sideways and downward so fast that the blow of striking the ground was pure agony.

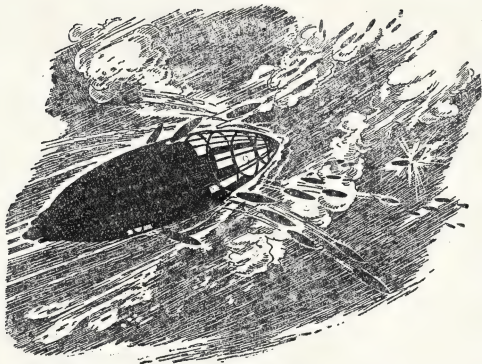
She lay there stunned, and out of the corner of her eye she saw the spear plunge through the air where she had been.

She twisted, rolled over—her own free will now—and jerked her gun in the direction from which the spear had come. There was a second centaur there, racing away along a bare slope. Her finger pressed on the control; and then—

"Don't!" It was Maltby, his voice low. "It was a scout the others sent ahead to see what was happening. He's done his work. It's all over."

She lowered her gun and saw with annoyance that her hand was shaking, her whole body trembling. She parted her lips to say: "Thanks for saving my life!" Then she closed them again. Because the words would have quavered. And because—

Saved her life! Her mind poised on the edge of blankness with the shock of the thought. Incredibly—she had never before been in personal danger from an individual creature.



There had been the time when her battleship had run into the outer fringes of a sun; and there was the cataclysm of the storm, just past.

But those had been impersonal menaces to be met with technical virtuositities and the hard training of the service.

This was different.

All the way back to the segment of ship she tried to fathom what the difference meant.

It seemed to her finally that she had it. "Spectrum featureless." Maltby gave his findings over the astro. "No dark lines at all; two of the yellow bands so immensely intense that they hurt my eyes. As you suggested, apparently what we have here is a blue sun whose strong violet radiation is cut off by the atmosphere.

"However," he finished, "the uniqueness of that effect is confined to our planet here, a derivation of the thick atmosphere. Any questions?"

"No-o!" The astrophysicist looked thoughtful. "And I can give you no further instructions. I'll have to examine this material. Will you ask Lady Laurr to come in? Like to speak to her privately, if you please."

"Of course."

When she had come, Maltby went outside and watched the moon come up. Darkness—he had noticed it the previous night—brought a vague, overall violet haze. Explained now!

An eighty-degree temperature on a planet that, the angular diameter of the sun being what it was, would have been minus one hundred eighty degrees, if the sun's apparent color had been real.

A blue sun, one of five hundred thousand— Interesting but— Maltby smiled savagely—Captain Planston's "No further instructions!" had a finality about it that—

He shivered involuntarily. And after a moment tried to picture himself sitting, like this, a year hence, staring up at an unchanged moon. Ten years, twenty—

He grew aware that the woman had come to the doorway and was gazing at him where he sat on the chair.

Maltby looked up. The stream of white light from inside the ship caught the queer expression on her face, gave her a strange, bleached look after the yellowness that had seemed a part of her complexion all day.

"We shall receive no more astro-radio calls," she said and, turning, went inside.

Maltby nodded to himself, almost idly. It was hard and brutal, this abrupt cutting

off of communication. But the regulations governing such situations were precise.

The marooned ones must realize with utter clarity, without false hopes and without the curious illusions produced by radio communication, that they were cut off forever. Forever on their own.

Well, so be it. A fact was a fact, to be faced with resolution. There had been a chapter on castaways in one of the books he had read on the battleship. It had stated that nine hundred million human beings had, during recorded history, been marooned on then undiscovered planets. Most of these planets had eventually been found; and on no less than ten thousand of them great populations had sprung from the original nucleus of castaways.

The law prescribed that a castaway could not withhold himself or herself from participating in such population increases—regardless of previous rank. Castaways must forget considerations of sensitivity and individualism, and think of themselves as instruments of race expansion.

There were penalties; naturally inapplicable if no rescue was effected, but ruthlessly applied whenever recalcitrants were found.

Conceivably the courts might determine that a human being and a robot constituted a special case.

Half an hour must have passed while he sat there. He stood up finally, conscious of hunger. He had forgotten all about supper.

He felt a qualm of self-annoyance. Damn it, this was not the night to appear to be putting pressure on her. Sooner or later she would have to be convinced that she ought to do her share of the cooking.

But not tonight.

He hurried inside, toward the compact kitchen that was part of every segment of ship. In the corridor, he paused.

A blaze of light streamed from the kitchen door. Somebody was whistling softly and tunelessly but cheerfully; and there was an odor of cooking vegetables, and hot *lak* meat.

They almost bumped in the doorway. "I was just going to call you," she said.

The supper was a meal of silences, quickly over. They put the dishes into the automatic and went and sat in the great lounge; Maltby saw finally that the woman was studying him with amused eyes.

"Is there any possibility," she said abruptly, "that a Mixed Man and a human woman can have children?"

"Frankly," Maltby confessed, "I doubt it."

He launched into a detailed description of the cold and pressure process that had molded the protoplasm to make the original Mixed Men. When he finished he saw that her eyes were still regarding him with a faint amusement. She said in an odd tone:

"A very curious thing happened to me today, after that native threw his spear. I realized"—she seemed for a moment to have difficulty in speaking—"I realized that I had, so far as I personally was concerned, solved the robot problem.

"Naturally," she finished quietly, "I would not have withheld myself in any event. But it is pleasant to know that I like you without"—she smiled—"qualifications."

Blue sun that looked yellow. Maltby sat in the chair the following morning puzzling over it. He half expected a visit from the natives, and so he was determined to stay near the ship that day.

He kept his eyes aware of the clearing edges, the valley rims, the jungle trails, but—

There was a law, he remembered, that governed the shifting of light to other wave bands, to yellow for instance. Rather complicated, but in view of the fact that all the instruments of the main bridge were controls of instruments, not the machines themselves, he'd have to depend on mathematics if he ever hoped to visualize the kind of sun that was out there.

Most of the heat probably came through the ultraviolet range. But that was uncheckable. So leave it alone and stick to the yellow.

He went into the ship. Gloria was nowhere in sight, but her bedroom door was closed. Maltby found a notebook, returned to his chair and began to figure.

An hour later he stared at the answer: One million three hundred thousand million miles. About a fifth of a light year.

He laughed curtly. That was that. He'd have to get better data than he had or—

Or would he?

His mind poised. In a single flash of understanding, the stupendous truth burst upon him.

With a cry he leaped to his feet, whirled to race through the door as a long, black shadow slid across him.

The shadow was so vast, instantly darkening the whole valley, that, involuntarily, Maltby halted and looked up.

The battleship *Star Cluster* hung low over the yellow-brown jungle planet, already dis-

gorging a lifeboat that glinted a yellowish silver as it circled out into the sunlight, and started down.

Maltby had only a moment with the woman before the lifeboat landed. "To think," he said, "that I just now figured out the truth."

She was, he saw, not looking at him. Her gaze seemed far away. He went on:

"As for the rest, the best method, I imagine, is to put me in the conditioning chamber, and—"

Still without looking at him, she cut him off:

"Don't be ridiculous. You must not imagine that I feel embarrassed because you have kissed me. I shall receive you later in my quarters."

A bath, new clothes—at last Maltby stepped through the transmitter into the astrophysics department. His own first realization of the tremendous truth, while generally accurate, had lacked detailed facts.

"Ah, Maltby!" The chief of the department came forward, shook hands. "Some sun you picked there—we suspected from your first description of the yellowness and the black. But naturally we couldn't rouse your hopes—Forbidden, you know."

"The axial tilt, the apparent length of a summer in which jungle trees of great size showed no growth rings—very suggestive. The featureless spectrum with its complete lack of dark lines—almost conclusive. Final proof was that the orthosensitive film was overexposed, while the blue and red sensitives were badly underexposed."

"This star-type is so immensely hot that practically all of its energy radiation is far in the ultraviolet. A secondary radiation—a sort of fluorescence in the star's own atmosphere—produces the visible yellow when a minute fraction of the appalling ultraviolet radiation is transformed into longer wave lengths by helium atoms. A fluorescent lamp, in a fashion—but on a scale that is more than ordinarily cosmic in its violence. The total radiation reaching the planet was naturally tremendous; the surface radiation,

after passing through miles of absorbing ozone, water vapor, carbondioxide and other gases, was very different.

"No wonder the native said it had always been hot. The summer lasts four thousand years. The normal radiation of that special appalling star type—the æon-in-æon-out radiation rate—is about equal to a full-fledged Nova at its catastrophic maximum of violence. It has a period of a few hours, and is equivalent to approximately a hundred million ordinary suns. Nova O, we call that brightest of all stars; and there's only one in the Lesser Magellanic Cloud, the great and glorious S-Doradus.

"When I asked you to call Grand Captain Laurr, and I told her that out of thirty million suns she had picked—"

It was at that point that Maltby cut him off. "Just a minute," he said, "did you say you told Lady Laurr *last night*?"

"Was it night down there?" Captain Planston said, interested. "Well, well—By the way, I almost forgot—this marrying and giving in marriage is not so important to me now that I am an old man. But congratulations."

The conversation was too swift for Maltby. His minds were still examining the first statement. That she had known all the time. He came up, groping, before the new words.

"Congratulations?" he echoed.

"Definitely time she had a husband," boomed the captain. "She's been a career woman, you know. Besides, it'll have a re-vivifying effect on the other robots . . . pardon me. Assume you, the name means nothing to me."

"Anyway, Lady Laurr herself made the announcement a few minutes ago, so come down and see me again."

He turned away with a wave of a thick hand.

Maltby headed for the nearest transmitter. She would probably be expecting him by now.

She would not be disappointed.



WILLIE

By FRANK BELKNAP LONG

The man had forgotten how he came there, what had gone before—and even where he was or belonged. And the half-savage people couldn't tell him. But there was one better memory—

THE valley had a harsh, scoured look, as though rain and erosion had removed every vestige of beauty from the clearness which filled it from brim to brim.

To the man standing on the cliff edge gazing down, the domes of the valley city seemed harsh, too. Against the haggard face of the cliff wall opposite they looked like a cluster of toadstools in a nightmare—motionless, shadowless and enveloped in a spectral negation of light.

The silent watcher groaned and stared down over himself. A big man he was, darkly bearded, and with a jet-black jaguar skin encircling his loins.

What had happened to him? How had he—

He could not even account for the rude stone hatchet which he was claspings in his calloused right hand. He had a feeling that the hatchet might be needed at any moment, but where he had acquired it and under what circumstances he could not recall.

He did remember an argument with someone who had opposed him, and something powerful and dignified in himself that had silenced all opposition. Everything else was vague, nebulous, even a little terrifying. He remembered vaguely a gyrating shape of metal, the dull, slow throbbing of a revolving mechanical something—

No, it was more complicated than that. The something was only a small part of a larger and more terrifying memory-complex which smoldered just beneath the surface of his consciousness.

Smoldered, but gave no light. His thoughts were a whirling chaos, and he could sense the stirring of something primitive in himself which had no right to exist.

It was hard to understand why he, a man of the twenty-ninth century, should be wearing the skin of a jaguar and claspings a rude stone hatchet. But what tormented him with an even more appalling immediacy was his certain knowledge that something was expected of him which required all of his courage and skill.

He had thought himself alone, but suddenly he was aware of stealthy movements behind him, and the feel of eyes on his broad back.

With a savage snarl he swung about, his fingers tightening on the handle of his hatchet, his eyes pin points of hot purpose.

The Prowler was a big brute, with shaven head and shoulders burned by the sun's glare. He, too, was claspings a stone hatchet, and there was a maniacal fury in his stare.

His scalp prickling, the man of the twenty-ninth century took a slow step backward, raised his arm and hurled his hatchet straight at his enemy's skull.

With a blood-curdling yell, the Prowler leaped sideways, but the hatchet seemed to follow him. With a sickening crunch it buried itself in the big brute's skull, and toppled him forward upon his face. He struggled some on the ground, his tongue protruding and his head flopping back and forth on his long neck. He turned completely about and almost succeeded in getting to his feet. Twice he raised himself, one eye open, the other closed, his stomach drooping like a blubbery sack. Then his limbs seemed to draw together under his body, and a dry, harsh rattle came from his throat.

The man of the twenty-ninth century shuddered and stood for an instant staring grimly down at the glistening ribbon of

blood which was meandering from the Prowler's split skull out over the ground. He was both repelled and fascinated by the ceremonial tuft of hair on his enemy's shaven pate and the odd shadow cast by the projecting hatchet on his enemy's gray face.

Suddenly, with a wry grimace, he stooped and did what was customary.

Descending to the valley city with the scalp of his enemy dangling from his waist the man of the twenty-ninth century wondered if he was going mad. In the city toward which he was moving men did not scalp their enemies. As an example, a warning to all Prowlers it *had* to be done. But in the city toward which he was moving men lived in amity in a civilization which seemed to stretch far away into blue distances—

The scalp of his enemy and rust-red stains on the rude hatchet symbolized something that he had had to fight for in a cool, throbbing, deep-blue world in which men lived in amity beneath the stars.

Something that he had had to fight for—a scoffed-at idea.

"I'll go alone. I'll go, and return. You'll see."

He had had the right to command. He could make decisions and enforce them. Something calm and determined in him, brooking no opposition, silencing protests with a wave of his hand.

He had had the right to insist. He wore the gray insignia of a Monitor, and his superlative intellect had given him the right to rule. There had been other rulers in the cool, throbbing, deep-blue world, but they had shrugged and turned away. Shrugged and—

No, no, they had *not* turned away. He was quite sure they hadn't. Symbolically perhaps—but not in a physical sense. Their curiosity had gotten the upper hand. They had remained staring down at him until—

He was close to the city now, his face pitiful in its bewilderment. Well, he'd . . . he'd go straight to Willie. Willie wasn't just an ordinary robot. Willie was almost human, and it had been his wont to wait outside the Hall of Monitors until his maker was through discussing matters which were beyond a robot's ken. The messenger would come in and explain that Willie was making a nuisance of himself out in the corridor.

"The little fellow is waiting outside, Monitor 236. What shall I tell him?"

He'd go straight to Willie. Willie wasn't just an ordinary robot. Willie could sulk

and make scenes, but wild horses could not drag Willie from his maker.

Monitor 236 almost sobbed with relief when he found himself with his feet firmly planted on a thrumming moto-pavement and saw that he was being borne swiftly along toward the central gate of the valley city. He was very close to the gate, now, and his thoughts were whirling dizzily, and his vision seemed a little out of focus.

The valley city didn't look quite right—now that he was close to it. It had shed its aspect of harshness and its pale domes, pulsing with a spectral radiance, seemed to gather beauty as they swept up toward the cliff wall overhead. But the atomic power pylons flanking the east gate seemed wider and higher than they had been and there were other queerly altered contours here and there.

He wondered suddenly why he was alone on the moto-pavement. Usually there was a continuous stream of people passing in and out through the central gate. There was a pulsing at his throat as he stared across a waste of tumbled red sand at a white ribbon of traveling metalplas—the outgoing motoway. It carried no passengers. Not a soul was leaving the city, and—he alone was entering it!

He accelerated his stride a little, moving now almost as fast as the shining expanse of metalplas which was carrying him toward the central gate. It was considered undignified to walk at a rapid pace on a moto-pavement. Standing perfectly still and conversing with your next pace neighbor was practically a must, unless you didn't care about conserving your energies or had a stratoliner to catch.

But—he was a Monitor and could run if he wished. Could run, run. And because there were no passengers ahead to impede his passage, and there was now a horrible sick apprehension at the pit of his stomach, he quite suddenly threw his dignity to the winds.

He ran to the moving pavement, the reeking animal hide on his tall, sacrosanct Monitor's body jogging up and down, the gore-spangled stone hatchet twisting in his clasp.

At that moment the appearance of a single passenger on the motoway, the relief and joy of hearing someone say, "Good evening, Monitor 236. Would it please you to converse with a Commoner?" would have gone far to restore his shattered confidence. But there was no one. No one.

The motoway was carrying him now straight through the central gate into the city. He could see the pale domes of the city pulsing with radiance and the featureless bulk of the central power station looming like a Gargantuan skyward, pointing finger against the everlasting east wall of the valley.

He could see as well the crisscrossing, prismatic spider webs which were the motoways, uniting domes and power shafts and residential tier units in a continuously moving system of communication.

He could see the robots. The great, stationary, nonvolitional robots which did not at all resemble men, but were simply cubes of prismatic metal with retractile limbs, and telegonic minds sensitive to human-brain impulses.

They stood motionless at intervals in the blueness, ready to move, connect, clip, disentangle, rectify, check and in a hundred smoothly efficient ways dispose of the kinks which were constantly developing in the vast, complex life of the city.

When they moved about they were all whirling disks and agile digits, but there was no possibility of any physical change in them. They were mindless until intelligence flowed into them along communicator beams, and for a hundred years they had moved mechanically about the city.

They were virtually indestructible, sensitive, mechanical slaves, and Monitor 236 saw that a few of them were moving now deep in the blueness as he stumbled with bursting lungs from the moto-pavement.

Someone was running toward him, waving white arms. Running toward him in the blueness and it seemed to him as though he were returning from a long journey to that someone alone.

The someone wasn't beautiful. A snub nose and a freckled face impinged first on his vision and then with a gaze almost convulsive in its eagerness he embraced the whole of the vision.

She wasn't a vision, though. You couldn't smell a vision and you couldn't embrace it with your arms after you had embraced it with your eyes. Her hair smelled like charred embers, and there was something utterly savage and possessive in the way she clung to him, and kissed him that would have made the Monitors blanch.

Surprisingly, it brought rapture, pure joy. It seemed to melt all of the tension inside

him, so that he was no longer terrified, or confused.

Yet she wasn't beautiful. A barbarian woman clad in a poor apology for a panther's skin—a thing of shreds and tatters which had left her almost unclothed. A savage woman, with jungle-bright eyes, and splintered teeth stained with berry juice.

"We thought you'd never come," she panted. "You were right and we were—stupid fools! The Prowlers are going to attack."

He stared at her, his jaw muscles twitching. For a moment he seemed to be living in two obscurely remembered worlds which impinged, overlapped, and yet were separated by wide wastes of time.

The tension had returned again. Utter bewilderment shone in his eyes, and communicated itself to the girl.

"What is wrong, Agar?" she whispered hoarsely. "Why are you staring at me like that?"

"Agar? Yes, I *am* Agar," he replied, as though he felt a need to speak his name aloud.

The girl seemed frightened. Frantically she gripped his wrist. "Agar, what is it? Tell me, Agar!"

Her long, sharp nails were cutting into his flesh now, and when he lowered his gaze he perceived that there were little flecks of crimson on the moto-pavement, which was swirling past him on a level with his knees.

His blood, the blood of a Monitor, spilled by the too-frantic clasp of a savage woman in a city of the twenty-ninth century. A city of glowing domes receding to an everlasting cliff, a city which seemed to stretch far away into blue distances—

A compulsion which he could not explain caused him to leap suddenly back on the moto-pavement.

"Our people are ready, Agar," the girl exclaimed, clambering up beside him. She did not leap on the pavement as he had done, but seemed rather to draw herself up over it, as though it were somehow charged with magic and had to be cautiously mounted.

"Our people are waiting in the shadow of the Half Body, Agar!"

The Half Body! Yes, he remembered now. He had left his people huddled beneath the great metal Half Body, their hairy, uneouth faces illumined by the leaping

flames of the fire which he had kindled for their protection.

The Prowlers feared fire, and—the Prowlers feared his people. But the Prowlers envied his people the security of the city, and the magical might of the Half Body.

The Half Body had been worshiped since the beginning of time. It was cold, and blue and unstimulating—a shape of colossal dimensions which towered in the exact middle of the Central Square, and protected his people with its vast, inscrutable stare. Symbolically it was not so much a half body as a Face which brooded over the city, never sleeping—a great, metal face with all of its immense wisdom concentrated in its eyes.

"We must fight with all our strength," the girl at his side whispered. "The Prowlers must be destroyed."

Again that feeling of two dimly remembered worlds impinging, carrying his thoughts beyond their depths, and enmeshing him in a paradox that assailed his reason like a gadfly.

The Prowlers? Who were the Prowlers? The moto-pavement was carrying him swiftly into the heart of the city now, straight toward the Hall of Monitors and the great Central Square.

"I am a Monitor," he said, drawing himself up. "What is your occupation, girl? And why are you staring at me like that? Speak, you have my permission."

"I have your permission, Agar? Your per—"

"Well, I am a Monitor, and—"

A look of utter consternation came into the girl's face.

"Agar, Agar, what has come over you?" she almost sobbed. "You will bring down fire from the sky. The name you just spoke. Oh, I dare not say it! Fire would consume me."

He flushed angrily and made a move as though to take her by the shoulders and shake some sanity into her.

When a girl of unstable ancestry went over the borderline—She had evidently been masquerading as a savage in the streets. It happened sometimes, faulty conditioning, too much delving into anthropology, folklore, the customs and savage rituals of remote and primitive races and the corybantic cult practices of the not-worth-civilizing Asiatic islanders, and Australian aborigines.

But why weren't the nonvolitional robots converging upon her, in response to impulses from the Public Safety Center? A tragic and

pitiful case, but outside the jurisdiction of a Monitor. Not that he *couldn't* interfere, but the psychiatric people were so damned touchy. Keeping demented Commoners off the streets was just routine to them, when they had the co-operation of Public Safety. Now, apparently, they weren't getting it.

He saw them suddenly, all of his people huddled about a swollen fire in the middle of the Central Square, beneath the great, gleaming Half Body. The moto-pavement was carrying him so swiftly toward them that he had hardly time to adjust his vision to that wide, crouching half circle of desperate men and women when he found himself inside it, the cynosure of all eyes.

With yells of relief and joy the women of his tribe clustered about him, touching his legs, his chest, his biceps as though there adhered to him some strong, pure magic which could protect them from the bestial savagery of the Prowlers. The men stood straight and still, regarding him with shining eyes, but he knew that they too looked upon him as the greatest of warriors.

He knew that they were ready to die for him, and he felt suddenly proud to be once again standing with his people beneath the Half Body. His eyes grew moist yet firmed when they rested on the battle-scarred bodies of his hatchetmen.

There was old Babu crouching in the shadows, his thin face looking almost skeletal in the firelight, his eyes fanatically gleaming slits. Old Babu, with "death to Prowlers" in his stare, and Tigur, barrel-chested, knock-kneed, but a fighter to his toenails, all his amorousness put aside now as he braced himself for what he knew was coming. There was Kapah, Tumun, Grun and young Ukar, a boy in years, but mighty in girth and so full of courage that he seemed always to be fighting shining battles deep within himself.

"Death to Prowlers." The words seemed to sing through Agar's brain as he took up his position beneath the Half Body, the girl in the crook of his arm. She had come into the curve of his arm as though by instinct, and even as though it were her right to be thus close to him when he fought.

"They attacked once, but we drove them off," he heard someone growl, and raising his eyes found himself meeting the level, fanatical stare of old Babu.

"I saw them," he heard himself replying. "They've been gathering on our side of the valley since dawn."

The lower portion of old Babu's face seemed to harden, as though some sudden and mysterious alchemy were working to change his jaw muscles from stone to iron.

"A boy could have spied on them," he snarled. "Why did you leave us?"

"To see with my own eyes, and to bring back with me proof of my seeing," he heard himself replying. As he spoke he raised the moist red scalp of the Prowler he had slain, and dangled it before old Babu's nose.

"We needed no proof," old Babu scoffed.

"You made light of the danger. You said the Prowlers would never attack. You said there were too few of them, too many of us."

"I said that?" growled Babu, running his finger along the livid scar that bisected his right cheek.

"Babu, if you deny you said it, you lie in your teeth."

The old warrior's cracked lips split in a grin. Slowly his right eye lidded itself and then rolled back on a moist optic.

"Well, well," he growled. "Though we appeared to scoff we did not doubt your wisdom. It is just that—well, we love you, Agar. Without you to lead us we would fight with sinking hearts."

"You would fight well enough," Monitor 236 heard himself reply. "You . . . you're just on the threshold of the warrior-king-priest stage. You think I possess magical powers. You haven't actually defied me yet, but when I'm dead you'll put me on so high a pedestal I won't be able to climb down and help you. You'll pick out someone to intercede for you—an unscrupulous old buzzard of a witch doctor who'll lead you deeper and deeper into the mire."

Babu pressed his lips together and looked away. "Sometimes your speech carries you away from us on wings of darkness," he said.

A look of bewilderment passed over Agar's face.

"What . . . what did I just say, Babu?"

"Don't make me repeat it," Babu replied.

"He has spoken strangely to me, too, Babu," the girl in the crook of Agar's arm said. "Sometimes it is better to wonder than to know why a great warrior must speak so. You must trust him as I do, Babu."

"I have not removed my trust from him," Babu growled. "But—"

The old warrior's eyes became a wet shine suddenly, and his hand darted to the hatchet at his waist.

"Here it comes," he grunted.

A sensation of fierce readiness stirred in Agar, tensing the muscles of his back. He saw Babu leap to rejoin his warriors, and felt the girl slipping from his clasp. There was a wetness on his chest over his heart, where she had pressed her cool lips as though to steel him for combat. A wetness on his chest, a feeling of fierce readiness and then he was leaping forward with his hatchet upraised.

The Prowlers were sweeping in on his people from every part of the square. With bloodcurdling screams they streamed over the converging moto-pavements, their shaven heads gleaming in the blueness and their lips snagged by their teeth.

There was no order or method in their attack and neither was there discipline in the ranks of Agar's warriors. From the first it was hand-to-hand and grip-to-grip, with hatchets rising and falling until the Central Square ran crimson.

Back and forth the battle surged, with barbarians pitted against savages now directly under the great, towering Half Body, and now beneath the long gray line of power conduits on the far side of the square and now in the middle of the square in a sickening crescendo of slaughter.

The Prowlers fought without giving or asking quarter. They seemed intent only on massacring Agar's people as fiendishly as possible.

It was ghastly, and there was no stopping it. Wildly Agar found himself wrenching a hatchet from a hairy hand and chopping down on a nose that went shooting off in a gory sliver. With two hatchets he then assailed the yelling savage just beyond, only to have both hatchets torn from his clasp by a seven-foot giant with hairy shoulders.

Dodging a lunge that just missed his jugular, he dropped to one knee and butted upward with his skull. With a rattling cough the massive one went staggering backward, his skull split from behind by still another hatchet.

Old Babu had come panting up just in time. Babu had hurled the hatchet, but another Prowler wanted it. As Babu wrenched it from the big Prowler's splintered skull he had to kill again, with swift and gory precision.

Babu now had two hatchets and he handed one to Agar. Somewhere an unearthly scream rose and subsided. Some-

thing slithered along the pavement between Agar's spread legs until it came to rest against Babu's foot.

It had hair and eyes, but Babu kicked it. The next instant both men were vigorously separated, Babu by a press of savages that compelled him to give ground with fierce distortions of his countenance—Agar by an equally urgent necessity to cleave skulls in the opposite direction.

There seemed to be no end to the struggle. Agar could not even tell whether his people were losing or gaining ground. He only knew that all about him was the hue and cry of battle, and he seemed to be leading his people to victory in the midst of a rout.

Unbelievably to victory, though it was some time before he discovered the reason for the wild exaltation which shone in the eyes of his people as they surged about him. He was in the midst of his people now, and they were no longer fighting for their lives.

Only the Prowlers seemed to be fighting, for the yells which continued to arise from one side of the square, quite outside the ring of barbarian faces, were unmistakably savage in timbre.

It was a little absurd that he wasn't allowed to get a clear view of what was happening. But he knew the reason for it. It was the old "the head man is sacrosanct" taboo, closing in on him from all sides, and preventing him from knowing what was going on beyond the tight circle of fighting men determined to protect him from all danger, now that there was no longer any need for him to risk his life in battle.

It had almost all happened when his warriors fell back, affording him a clear view of the square.

It was a little sickening, and almost he regretted having yelled and waved his hatchet and insisting on his right to stare, when he might have been spared seeing the last of the Prowlers struggling in the clasp of the great, nonvolitional robots.

The Prowlers had tried to escape from the square by the only route open to them—a gleaming motoway that passed to the left of the Half Body, and spiraled upward about the Hall of Monitors. Seemingly they hadn't seen the robots descending the spiral toward them, clumping downward over the continuously ascending pavement and making continuous progress despite its upward sweep.

All but six of the robots were at the base of the spiral now and it was easy to see that they had the situation well in hand.

The robots were all whirring disks and agile digits. The robots were rectifying a kink in the vast, complex life of the city. Gouging, ripping, breaking up what remained of the kink.

Most of the kink lay now in huddled heaps at the base of the Half Body, the motoway beneath it glistening wet and slippery. The motoway was slowly carrying the kink out of sight and suddenly a score more limp and twisted Prowlers were hurled down, and the robots ceased to whirl.

Grooves and hollow openings appeared in their gleaming body cases, and retractile arms were whipped back out of sight. The buzz-saw wheels disappeared more slowly, seeming to glide from view and leaving crimson splotches in their wake.

Agar's harsh skin had whitened under the stunned brightness in his stare.

The robots had made no attempt to attack his people, but suddenly he was aware that one of them had swung about, and was clumping toward him across the square. Nearer it came and nearer, as though the teleo-electronic impulses which were keeping it in motion had made it a little drunk.

It halted directly before him, settling down on its flat bottom, and transfixing him with the huge, dully gleaming eye in the middle of its hollow chest. Slowly, as though drawn by a magnet. Agar drew close to that great unwinking orb. He did not know why his heart was beating so furiously. He had looked into the eyes of robots often enough. He'd see one of the Public Safety men, of course, reflected in the depths of the eye, directing the robot from the Chamber of Public Safety.

There was a gruesome jest going the rounds that some day a Monitor would look into a robot's eye and see something utterly unexpected. A political satirist, a self-styled writer of horror tales, had originated that one. It had gone the rounds of filmstage and musicdrone and taken its toll of shivers. The Monitor would see something dry and huge and hideous instead of a Director of Public Safety, a fearful, whistling shape with a glistening stare, sitting in the Chamber of Public Safety and keeping the robots clumping to and fro on their appointed rounds.

Agar's face had a harsh, scoured look, as though it had been scraped dry by a bone. Slowly and with a chill prickling up his back, he stooped and stared into the robot's huge eye.

A startled cry came from his lips.

It was insane, unbelievable—it was against

all reason! That Willie should have dared—

He was looking deep into the eye now, and he could see—*Willie!* The little robot was sitting in the Chamber of Public Safety with his metal fingers wrapped around the teleo-electronic impulse-sending apparatus. Gleaming wires descended from Willie's brain box to the apparatus, and behind him loomed the featureless gray walls of the chamber. But it seemed almost as though Monitor 236 could have stretched out his hand, and touched Willie.

"Willie!"

"Master!"

There was no mistaking the look in Willie's eyes. He was welcoming his maker home. He seemed now almost to be running toward his maker across the Central Square.

"Willie!"

"Master!"

"Willie!"

"Master!"

Suddenly the great, volitionless robot blinked, swung about on its ponderous heels, and went clumping across the Central Square to where the Half Body stood brooding in the blueness, with towered eyes that seemed to command the city's outermost domes and the everlasting cliff wall beyond.

Instinctively Monitor 236 knew that the robot was pointing at an inscription at the base of the statue. But he couldn't quite make out the inscription from where he was standing.

His temples were bursting and he had to move up very close to the pedestal, and even then he had to squint and strain. For an instant he seemed to be staring at the projecting metal letters through a shimmering veil behind which great pylons towered and as though his eyes had lost their focusing power and were burning holes through the back of his head. Then, quite suddenly, the shimmering subsided and the veil was gone.

The inscription read:

THE MAN WHO CONQUERED TIME

MONITOR 236

BORN 2857

DISAPPEARED IN TIME 2887

Willie, the thinking robot, sat in the Chamber of Public Safety, his metal legs dangling, and stared down through the eye of a volitionless robot at his maker's white

face. Stared down into the great Central Square and heaved a sigh of relief.

He'd have a lot of explaining to do, but everything was going to be all right now.

The master was getting his memory back. He had recognized that bust of himself which had been erected in his honor down in the Central Square, and a glorious change had taken place in him.

The master's face had changed unmistakably. It was no longer the face of a barbarian but that of a Monitor. Gone was the tightness about the lips of his master, and the savage intensity which had smoldered in his stare.

He, Willie, hadn't known that traveling in time would warp his maker's mind. Amnesia—and the master had had it bad. Willie *did* know about amnesia, having had nearly a million years to mull over the metal film psychiatric data in the Chamber of Public Safety.

He hadn't known that the master would have it when he returned.

He had only known that the master *would* return, and that he, Willie, must remain a faithful keeper of the flame. There is no limit to a robot's patience.

Even when the time cylinder had reappeared, and the rude descendants of his maker's people had accepted him as one of themselves he, Willie, had kept the moto-ways moving, the great, volitionless robots clumping to and fro on their appointed tasks.

In his cold robot's mind's eye, Willie went back across wide wastes of years. He saw again his maker climbing into the time cylinder, brooking no opposition. He saw Monitors 235 and 237 clamping down the lid of the cylinder over the master's calm, determined face, skeptical to the last, exchanging glances which said as plain as words:

"Time travels involves too many imponderables. The odds against him are a million to one."

Well, the master had invented a thinking robot, so why not a cylinder that could travel far into the future? Monitors 235 and 237 had scoffed at Willie, too. But he, Willie, had survived for a million years—had outlasted all the Monitors and all the soft-spoken, civilized people.

He had survived and so had his memories. Time could not blur them, and now, in his cold mind's eye, he could see the cylinder

revolving. Faster and faster, blurring and dimming until it seemed as though his grief must tear him asunder.

He could see it as clearly as though it had happened yesterday. Time could not blur a robot's memories, but time *had* blurred the cylinder. It had become a pale, opalescent cocoon, faintly luminous against a soft, pulsating blackness.

Then, quite suddenly, it had disappeared.

Willie's iridescent eyes paled, and his serrated metal jaw jiggled downward.

In the great Central Square the master had turned and was embracing that *girl* again—a girl little better than a Prowler. Embracing her with shining eyes, as though

he were a barbarian still and she were the only woman in the world for him.

For an instant Willie stared, his jaw sinking lower and lower. Then, with a click, he shut off the impulse-transmitting apparatus.

Love. Love was a disease, sort of, but the master had always had it. It was worse than amnesia, because there had never been a cure for it.

Still—he, Willie, wasn't sorry he had remained a faithful keeper of the flame. The master would rule again now, gently but firmly guiding his rude descendants back into paths of civilization.

The master would rule again.

SUPPRESSED VIOLENCE

A DWARF star is something of a pet item for science-fiction. But the actual appearance of a dwarf sun, close to, is something we don't know any too much about. One general thing is perfectly certain: the white dwarf type represents sheer, raw energy, undiluted atomic violence, leashed and beaten down by opposing forces of unimaginable magnitude great enough to defeat the stupendous fury of even those immense energies! For pure, unadulterated essence of destruction, the condition of the white dwarf suns cannot be surpassed.

A typical white dwarf sun may have the mass of the Sun, with a size smaller than that of Earth. The surface temperature has been driven up and up as the once-huge star shrank till it has reached something on the order of 30,000°—five or six times as hot as the Sun's surface, and radiating nearly 1,300 times as rapidly per unit area. "White" dwarf is a misnomer; it's an ultraviolet dwarf, only our eyes cannot see and our atmosphere will not pass ultraviolet light of that hardness. Nearby, a man's eyes would be seared out of usefulness in seconds, and by radiation he did not even realize was present.

Such stars give no spectrum lines; a spectrum appears only when light passes through a layer of reasonably tenuous gas—something on the order of density of our atmosphere or less. A gas compressed to

high density radiates like a solid metal—a featureless blaze of white light.

They have an atmosphere, as do all stars. Recent work on the Sun has indicated that it, a pretty normal, slightly brighter-than-average star, has an atmosphere hundreds of thousands of miles deep. Some stars have atmospheres billions of miles deep.

A white dwarf has an atmosphere—a boiling, violent, stupendously hot and terrifically compressed stellar atmosphere—*twelve feet deep*. There are no prominences, no sunspots; under the unbearably intense surface gravity of such a sun, no prominence and no irregularity of appreciable size could exist. The human eye could not detect motion in the medium if it existed—gas eddies and waves crushed down by that terrific gravity, answering to forces generated in that dense murk, would snap from formation to formation in thousandths of a second, not in hours.

To human vision, screened to endure the radiation, the whole crushed star would appear as smooth and featureless as a steel ball.

But a steel ball dropped into it would *implode*—simultaneously and instantaneously change to a gas so hot the atoms of iron could not maintain their formation, and collapse inward under pressure so great as to crack the electron shells of the atoms themselves.

SYMBIOTICA

By ERIC FRANK RUSSELL

The exploring crew had run into some nasty jams with robots—but this machineless world seemed tame and safe enough for men armed as they were—till they learned about the possibilities of symbiosis!

I.

THEY'D commissioned the *Marathon* to look over one floating near Rigel, and what some of us would've liked to know was how the devil our Terrestrial astronomers could pick out likely specimens at such an arithmetical distance. Last trip they found us a juicy job when they sent us to that mechanical world and its watery neighbor near Bootes. The *Marathon*, a newly designed Flettner job, was something super. It hadn't a counterpart in our neck of the cosmos. So our solution of the mystery was that astronomers had got hold of some instrument just as revolutionary.

Anyway, we'd covered the outward trip as per instructions and were near enough to see that once again the astronomers had lined them up for jackpot when they said that here was a planet likely to hold life. Rigel blazed like a distant furnace way over to starboard and about thirty degrees above the plane that was horizontal at that moment. What I mean is that the horizontal plane is always the ship's horizontal plane and the cosmos has to relate itself to it whether it likes it or not. But this plane's primary wasn't the far-off Rigel: it was a kid brother sun just a fraction smaller and paler than Old Sol. There were two more planets lying farther out, we'd seen yet another the other side of the sun. That made four in all, but three looked as sterile as a Venusian guppy's mind and only this one, the innermost one, seemed interesting.

We swooped on it bow first. The way that world swelled in the ports did things to my bowels. One trip on the casually meandering *Upsydaisy* had given me my space legs and got me used to living in suspense over ump-teen millions miles of nothing, but I

reckoned it'd take me another century or two to get accustomed to the mad bull take-offs and landings of these Flettner craft. Young Wilson muttered in his harness and I knew that he was following his pious custom of praying for the safety of his precious photographic plates. From his look of spiritual agony you'd have thought he was married to the darned things. We landed, *kerumph!* The boat did a belly slide.

"I wouldn't grieve," I told Wilson. "Those things never fry you a chicken or shove a strawberry shortcake under your drooling mouth."

"No," he admitted, "they don't." Struggling out of his harness, he gave me the sour eye and growled. "How'd you like me to spit in the needlers?"

"I wouldn't," I snapped.

"See?" he said, and forthwith beat it to find out whether his stuff had survived.

Sticking my face to the nearest port, I stared through the immensely strong Permex disk, had a look at the new world. It was green. You'd've never believed any place could be so thoroughly and absolutely green. The sun, which had appeared a primrose color out in space, now looked an extremely pale green. It poured down a flood of yellowy-green light. The *Marathon* lay in a great glade that cut through a mighty forest, and the glade was full of green grasses, herbs, shrubs and bugs. The forest was one mass of tremendous growths that ranged in color from a very light silver-green up to a dark, glossy green that verged on black. Brennand came and stood beside me, his face promptly went a spotty and bilious green as the light hit it. He looked like one of the undead.

"Well, here we are again." He turned his attention from the port, grinned at me,

abruptly wiped away the grin. "Hey, don't you be sick over me!"

"It's the light," I pointed out. "You look like something floating in the scuppers of a Moon-tripper."

"Thanks," he said.

"Don't mention it."

We stood there looking out and waiting for the general summons to the conference which usually preceded the first venture out of the ship. I was counting on maintaining my lucky streak by being picked out of the hat, and Brennand was itching to stamp his dogs outside, too. But the summons didn't come.

After a while, Brennand said, "The skipper's slow. What's holding him back?"

"No idea." I had another look at his leprous face. It was awful. Judging by his expression, he wasn't enamored of my features either. "You know what a cautious guy McNulty is. Guess that spree we had on Mechanistria persuaded him to count a hundred before giving an order."

"Yeah," agreed Brennand. "I'll go forward and see what's cooking."

He went along the passage. I couldn't go with him because I had to stand by the armory. You could never tell when they'd come for my stuff, and they had a habit of coming on the run. Brennand mooched disconsolately around the farther corner and had hardly gone when sure enough the exploring party barged in shouting for equipment. There were six of them: Molders, an engineer; Jepson, a navigating officer; Sam Hignett, our Negro surgeon, young Wilson and two Martians, Kli Dreen and Kli Morg.

"Huh, lucky again?" I growled at Sam, tossing him his needle ray and sundry oddments.

"Yes, sergeant." Sam's very white teeth glistened in his black face as he smiled with satisfaction. "The skipper says nobody's to go out afoot until we've first scouted around in No. 4 lifeboat."

Kli Morg got his needler in a long, snaky tentacle, waved the thing with bland disregard for everybody's personal safety, and chirruped, "Give Dreen and me our helmets."

"Helmets?" I looked from him to the Terrestrials. "You guys want spacesuits, too?"

"No," replied Jepson "The stuff outside is up to fifteen pounds and so rich in oxy-

gen you whizz while you think you're just ambling along."

"Mud," snapped Kli Morg. "Just like mud. Give us our helmets."

He got the helmets. These Martians were so accustomed to the three pounds atmospheric pressure of their native planet that anything heavier bothered them no end. That's why they had the use of the starboard air lock in which pressure was kept down to suit their taste. They could endure heavy pressure for a limited time, but sooner or later they'd wax unsociable and act like somebody had burdened them with all the world's woes.

We Terrestrials helped the pair of Martians to clamp down their goldfish bowls and exhaust the air to what they considered comfortable. If I'd lent a hand with this job once, I'd done it fifty times and it still seemed as wacky as ever. It isn't right that guys should be happy breathing in short whiffs.

Jay Score lumbered lithely into the armory just as I'd got all the clients decorated like Christmas trees. He leaned his three hundred pounds on the tubular barrier, which promptly groaned. He got off it quickly. His strong face was as impassive as ever, his eyes brilliant with their unearthly light.

Shaking the barrier to see if it was wrecked, I told him, "The trouble with you is that you don't know your own strength."

"No?" he inquired, with utter lack of tone. He turned his attention to the others. "The skipper wants you to be extra careful. We can't permit any copy of what happened to Haines and his crew. Don't fly below one thousand feet, keep the autocamera running, keep eyes skinned and beat it back here immediately you find anything worth reporting."

"Sure, Jay." Molders slung a couple of ammo belts over one arm. "We'll be careful."

They trailed out. Shortly, the lifeboat broke free with a squeaky parody of the *Marathon's* deep-throated, sonorous drumming. It curved sharply into the green light, soared over the huge trees and diminished to a dot. Brennand came back, stood by the port, watched the boat vanish.

"McNulty's as leery as an old maid with a penitentiary out back."

"He's got plenty of reason," I pointed out. "He's all the explaining to do when we return."

A smirk passed over his bilious complexion, and he went on, "I took a walk to the noisy end and found that a couple of those stern-gang punks have beaten us all to it. They're outside playing duck-on-the-rock."

"Playing what?" I yelped.

"Duck-on-the-rock," he repeated, enjoying himself.

I beat it to stern, Brennand following with a wide grin. Sure enough, two of those dirty mechanics who polish the tail had pulled a fast one. They must have crawled out through a main driver not yet cool. Standing ankle-deep in the green growths, the pair of them were ribbing each other and shying pebbles at a small rock poised on top of a boulder. You'd have thought this was a Sunday-school picnic.

"Does the skipper know about this?"

"You bet he doesn't! Think he'd pick that pair of unshaven bums for first out?"

One of the couple turned, saw us staring at him through the port. He smiled toothily, shouted something we could not hear, jumped nine feet into the air, smacked his chest with a grimy hand. I gathered that the gravity was low, the oxygen high, and that he was feeling top notch. Brennand's face suggested that he was sorely tempted to crawl through a tube and join in the fun.

"McNulty'll skin those hoodlum," I said.

"Can't blame them. The artificial gravity's still on, the ship's full of fog and we've come a long, long way. It'll be great to get out. I could do some sand-casting myself."

"There isn't any sand."

The pair outside became tired of the rock, got themselves a supply of pebbles from somewhere down among the growths, advanced toward a big bush growing fifty yards from the *Marathon's* stern. The farther out they went, the more they were likely to be spotted from the skipper's lair, but they didn't care a hoot. They knew McNulty couldn't do much more than lecture them.

This bush stood between ten and twelve feet high, had a very thick mass of bright green foliage at the top of a thin, willowy trunk. One of the approaching pair got a couple of yards ahead of the other, slung a pebble at the bush, struck it fair and square in the middle of the foliage. What happened then was so swift that we'd the utmost difficulty in following it.

The pebble crashed into the foliage, the entire bush whipped over as if its trunk was

a steel spring. A trio of tiny creatures fell out of its leaves, dropped from sight in the herbage below. The bush stood as before, undisturbed except for a minute quivering in its topmost branches. But the guy who'd flung the missile lay flat on his face. His following companion had stopped and was gaping like one petrified by the unexpected.

"Hey," squawked Brennand, "what happened there?"

Outside, the one who'd fallen flat, stirred, rolled over, sat up and started picking at himself. The other one got to him, helped him pick. No sound came into the ship, so we couldn't hear what they might have been talking about or the oaths they were certainly using. The picking finished, the smitten one came unsteadily erect. His balance was lousy, and his companion supported him as they started back to the ship. Behind them, the bush stood as imperturbably as ever, even its vague quivers having died out.

Halfway to the *Marathon* the pebble-thrower teetered, went white. Then he licked his lips and keeled over. The other one looked anxiously back toward the bush as if he wouldn't have been surprised to find it charging them. Bending down, he got the body in a fireman's hitch, struggled with it toward the midway air lock. Jay Score met him before he'd heaved his load ten steps. Jay strode powerfully and confidently through the carpet of green, took the limp form from the other's arms, carried it like it was nothing. We raced toward bow to find out what had happened.

Jay brushed past us, carried his burden into our tiny surgery where Wally Simcox, Sam's side-kick, started working on the patient. The other guy hung around outside the door and looked sick. He looked even sicker when Captain McNulty came along and stabbed him with a stare before he went inside.

After half a minute, the skipper shoved out a red, irate face and bellowed, "Go tell Steve to order that boat back at once. He's to warn Sam he's urgently needed."

Pelting to the radio room, I passed the message on. Steve's eyebrows circumnavigated his face as he flicked a switch and cuddled the microphone to his chest. He rattled off the message, listened to the reply.

"They're returning at once."

Going back, I said to the uneasy duck-on-the-rock enthusiast, "What happened, Stupid?"

He flinched. "That bush made a target of

him and filled his area with darts. Long, thin ones, like thorns. All over his face and neck and through his clothes. One of 'em made a pinhole in his ear, but they didn't get his eyes."

"Hell!" mouthed Brennand.

"A bunch of them whisked past me on my left, fell twenty feet behind. I heard 'em buzz like bees." He swallowed hard, shuffled his feet around. "It must have flung fifty or more. Guess I was lucky."

McNulty came out then. He looked pretty fierce, and the escapee promptly changed his mind about being lucky. The skipper said to him, very slowly and deliberately, "I'll deal with you later!" The look he passed across was enough to scorch the pants off a space cop. We watched his portly form parade down the passage.

The victim registered bitterness, scrambled to his post at stern. Next minute, the lifeboat made one complete circle overhead, descended with a thin zoom ending in a heavy *swish*. Its crew poured aboard the *Marathon* while the derricks clanked and rattled as they swung the lifeboat's twelve-ton bulk into the mother ship.

Sam was in the surgery an hour, came out shaking his head. "He's gone. We could do nothing for him."

"You mean he's—dead?"

"Yes. There's some sort of vegetable poison in those darts. It's virulent. We've no antidote for it. It seems to create blood clots, a condition of thrombosi." He rubbed a weary hand over his crisp, curly hair, added, "I hate having to report this to the skipper."

We followed him toward bow. I stuck my eye to the peephole in the starboard air lock as I passed and had a look at what Martians were doing. Kli Dreen and Kli Morg were playing chess with three others watching them. As usual, Sug Farn was asleep in one corner. It takes a Martian to be bored by adventure and to sweat with excitement over a slow-motion game like chess. They always did have an inverted sense of values.

Kli Dreen kept one saucerlike eye on the board while the other glanced idly at my face framed in the peephole. His two-way look gave me the meemies. I've heard that chameleons can swivel them independently, but no chameleon could do it so violently that the spectacle tied your own optic nerves in knots. I chased after Brennand and Sam. There was a strong smell of trouble up that end.

II.

THE skipper fairly rocketed on getting Sam's report. His voice resounded loud and complainingly through the slightly open door.

"Hardly landed and already there's a casualty in the log . . . utter foolhardiness . . . more than a silly prank . . . disregard of standing orders . . . sheer discipline." He paused while he took a breath. "The responsibility is mine. Jay, summon the ship's company."

The general call sounded throughout the ship as Jay Score pressed the stud. We barged in, the rest following close behind, the Martian arriving last. Eying us sourly, McNulty strutted up and down, lectured us at some length. We'd been picked as the crew of the *Marathon* because we were believed to be cool, calculating, well-disciplined individuals who'd come of age and had long outgrown such infantile attractions as duck-on-the-rock.

"Not to mention chess," he added, his manner decidedly jaundiced.

Kli Dreen started, looked around to see whether the others heard this piece of incredible blasphemy. Nobody spoke in denial.

"Mind you," continued the skipper, thinking again. "I'm no killjoy, but it is necessary to emphasize that there's a time and place for everything." The Martians rallied. "And so," McNulty went, "I want you always to—"

The ship's phone shrilled and cut him short. He had three phones on his desk, and he gaped at them as if his ears were telling him blatant lies. The ship's company looked each other over to see who was missing. They were all supposed to be there.

McNulty suddenly decided that to answer the phone would be a simple way to solve the mystery. Grabbing up an instrument, he shouted, "Yes?" One of the other phones whirled, proving him a bad picker. He slammed down the one he was holding, took up another, repeated, "Yes?"

The phone made squeaky noises against his ear while his florid features underwent the most peculiar contortions. "Who? What?" he said, incredulously. "What awoke you?" His eyes bugged out. "Somebody knocking at the door?" He planted the phone with the air of a sleepwalker, then spoke weakly to Jay Score. "That was Sug Farn. He complains that he's been disturbed from a siesta by somebody hammering on the turncrew of the storral lock." Finding

a chair, he flopped into it, breathed asthmatically. His still popping eyes found Steve Gregory, and he snapped, "For Heaven's sake, man, control those eyebrows of yours!"

Steve pushed one up, pulled one down, opened his mouth and tried to look contrite. The result was imbecilic. Jay Score bent over the skipper, conversed with him in smooth undertones. McNulty nodded tiredly. Jay came erect, addressed us.

"All right, men, get back to your stations. The Martians had better don their helmets. We'll install a pom-pom in that lock and have the armed lifeboat crew standing ready. Then we'll open the lock."

That was sensible enough. You could see anyone approaching the ship in broad daylight, but you couldn't see them once they'd got close up. The side ports didn't allow a sharp enough angle, besides which anyone standing under the lock would be shielded by the vessel's bulge. Nobody mentioned it, but the skipper had made an error in holding a revival meeting without keeping watch. Unless the hammers chose to move farther out there was no way of getting a gander at them except by opening. And we weren't going to cook the dinner and make the beds before seeing what was outside, not after that nasty experience when intelligent machines had started to disassemble the ship around us.

Well, the dozy Sug Farn got pushed out of his corner and sent off for his goldfish bowl. We erected the pom-pom, its eighth barrel lined dead center on the closed door of the lock. Something made half a dozen loud clunks on the door as we finished. It sounded to me like a shower of flung stones.

Slowly the door spun along its worm and drew aside. A bright shaft of green light poured through, also a dollop of air that made me feel like a healthy hippopotamus. At the same time, Chief Engineer Douglas switched off the artificial gravity and we all dropped to two thirds normal weight.

We watched the green illuminated opening so intently and anxiously that it was easy to imagine an animated metal coffin suddenly clambering through, its front lenses staring glassily. But there came no whirr of hidden machinery, no menacing clank of metal arms and legs, nothing except the sigh of invigorating wind in the distant trees, the rustle of blown grasses and a queer, far-away throbbing that I couldn't identify.

So silent was everyone that Jepson's regular breathing was loud over my

shoulder. The pom-pom gunner squatted in his metal seat, his hard eyes focussed along the sights, his finger ready on the trigger, his right and left hand feeders ready with reserve belts. All three were busy with wads of gum. Then I heard a soft pad-pad of feet moving in the grass below the lock.

We all knew that McNulty would throw a fit if anyone walked out to the rim. He still nursed memories of the last time somebody did just that and got snatched out. So we stayed put like a gang of dummies, waiting, waiting. Presently, there sounded a querulous gabble beneath the opening. A smooth rock the size of a melon flew through the gap, missed Jepson by a few inches, shattered against the back wall.

Skipper or no skipper, I got fed up, hefted my needler in my right hand, prowled half-bent along the footwalk cut through the threads of the air-lock opening. I reached the rim which was about nine feet above ground level, shoved out my inquiring face. Molders pressed close behind me. The muffled throbbing was clearer than ever, but just as elusive.

Beneath me stood a band of six beings who were startlingly human in general appearance. Same bodily contours, same limbs and digits, same features. They differed from us mostly in that their skins were coarse and crinkly, a dull, dead green in color, and that they had a peculiar organ like the head of a green and fleshy chrysanthemum growing out of their chests. Their eyes were sharp and jet-black, they jerked them about with monkeylike alertness.

For all these differences our similarity was so surprising that I stood staring at them while they stood staring back at me. Then one of them shrilled something in the sing-song tones of an agitated Chinese, swung his right arm, did his best to bash out what I use for brains. I ducked, heard the missile swish over my hair. Molders also ducked it, involuntarily pushed against me. The thing crashed somewhere inside the lock, I heard someone spit a lurid oath just as I overbalanced and fell out.

Clinging grimly to the needle ray, I flopped into soft greenery, rolled like mad and bounced to my feet. At any instant, I expected to see a shower of meteors as I got sluggish. But the six weren't there. They were fifty yards away and moving fast, making for the forest in long, agile leaps that would have shamed a hungry kangaroo. It would have been easy to have brought

two or three of them down, but McNulty would have crucified me for that. Earth laws were strict about treatment of extramundane aborigines.

Molders dropped down beside me, followed by Jepson, Wilson and Kli Yang. Wilson had his owl-eye camera with a color filter over the lens. He was wild with excitement.

"I got them from the fourth port. I made two shots as they scrambled."

"Humph!" Molders stared around. He was a big, burly, phlegmatic man who looked more like a Scandinavian brewer than a space bug. "Let's follow them to the edge of the forest."

"Yeah," agreed Jepson, heartily. He wouldn't have been so hearty if he'd known what was coming to him. Stamping his feet in the springy turf, he took a lungful of the oxygen-rich air. "This is our chance for a legitimate walk."

We started off without delay, knowing it wouldn't be long before the skipper began baying for us to come back. There was no man so hard to convince that risks have to be taken and that casualties are the price of knowledge, nor was there any man who would so far determined to do so little.

Reaching the verge of the forest, the six green ones stopped and watched our approach. If they were quick to beat it when caught out in the open, they weren't so quick when in the shadow of the trees which, for some unknown reason, inspired them with confidence. Turning his back to us, one of them doubled himself, peered at us from between his knees. It seemed senseless.

"What's that for?" growled Jepson.

Wilson sniggered dirtily, and said, "The Arab's farewell to his steed. It must be of cosmic significance."

"I could have scalded his seat if I'd been quick," remarked Jepson, aggrievedly. Then he put his foot in a hole and fell on his face.

The green ones set up a howl of glee, flung a volley of stones which all fell far short. We began to run, going along in great bounds. The low gravity wasn't spoiled by the thick blanket of air which, of course, pressed equally in all directions. Our weight was down so that we went along several laps ahead of Olympic champions. Five of the green ones promptly faded into the forest; the sixth shot like a squirrel up the trunk of the nearest tree. Their behavior

told that they'd reason for regarding the trees as safe refuge against all assault.

We stopped about eighty yards from that tree which, for all we knew, might have been ready for us with a monster load of darts. Our minds recalled what one bush had done. Scattering in a thin line, each ready to flop at the first untoward motion, we edged cautiously toward it. Nothing happened. We went nearer. Still nothing happened. In this manner we got well beneath its branches and close to its trunk. There was a strange fragrance like that of a mixture of pineapple and cinnamon. The elusive throbbing was stronger than ever.

It was a big, imposing tree. Its dark green, fibrous trunk, seven feet in diameter, soared up to twenty-five feet before it split into strong, lengthy branches each of which terminated in one huge, spatulate leaf. Looking at that trunk, it was difficult to tell how our quarry had fled up it, but he'd performed the feat like an adept.

All the same, we couldn't see him. Carefully, we went around the tree, gazing up into its great branches through which the green light filtered in large mosaic patterns. There was not a sign of him. No doubt about it, he was somewhere up there, but he simply couldn't be spotted by us. There wasn't any way in which he could have passed from this tree to its nearest neighbor, neither could he have come down. Our view up this lump of alien timber was fairly good considering the peculiar light, but the more we stared the more invisible he remained.

"That's a puzzler!" Jepson stepped well away from the trunk, seeking a better angle of view.

With a mighty *swoosh* a branch above his head drove down. Its spatulate leaf smacked him squarely in the back and a waft of pineapple and cinnamon went all over the place. Just as swiftly, the branch went up, carrying Jepson high into the air. Swearing like a tail mechanic, he struggled furiously while we gathered below him. He was stuck to the underside of that great leaf, gradually became covered in thick, yellowy-green goo as he writhed. The stuff must have been fifty times stickier than bird-lime.

Together we roared at him to keep still before he got the deadly junk spread all over his face. Already his clothes were covered with it, his left arm tied up in it. He looked a mess. It was obvious that once he smeared it over his mouth and nostrils he'd stick up there and quietly suffocate.

Molders had a try at getting up the trunk, found it impossible. He edged out to have a look upward, came in when he noticed another leaf in a strategic position. The safest place was beneath the unfortunate Jepson. A little over twenty feet up, the goo was slowly spreading over its victim and I reckoned that in half an hour he'd be completely covered—in much less if he wriggled around. All this time the dull pulsations continued as if ticking off the last moments of the doomed. They made me think of jungle drums heard through thick walls.

Gesturing to the golden cylinder which was the *Marathon* lying five hundred yards away in the glade, Wilson said, "Let's beat it back and get ropes and steel dogs. We'll soon bring him down."

"No," I answered. "We'll get him down a darned sight faster than that." Whereupon I aimed my needle ray at the point where Jepson's leaf joined the branch. The beam lanced forth at full strength.

The leaf dropped off and the tree went mad. Jepson fell into soft, springy undergrowth, the leaf still firmly fastened to his back. He landed with a wild yelp and a flood of curses. While we all lay flat, frantically trying to bury ourselves deeper, the tree thrashed around, its gum-laden spatulates hungry for vengeance.

One persistent branch kept beating within a yard of my head as I tried to shove said toppiece below ground. I hated the stink of pineapple and cinnamon that permeated the air. And it made me sweat to think how my lungs would strain, my eyes pop and my heart burst if I got a dollop of that junk slap in the face. I'd sooner've been neatly needled.

The tree ended its wild larruping, stood like a dreaming giant liable to wake into frenzy at any moment. Crawling to Jepson, we dragged him out of reach. He couldn't walk, his jackboots and the legs of his pants being firmly stuck together. His left arm was just as securely gummed to his side. He was in an awful pickle, cursed steadily and without pause for breath or thought. We'd never suspected him of such fluency. But we got him into the safety of the glade, and it was there I thought up a few words he'd overlooked.

III.

MOLDERS stolidly said nothing, contenting himself with listening to Jepson and me.

Molders had helped me to the dragging and now neither of us could let go. We were fixed to the original victim, bonded like brothers but not talking like brothers. There was nothing to do but carry Jepson bodily with our hands remaining on the most inconvenient parts of his anatomy. He had to go horizontally and face downward, as if he was a drunk getting frogmarched to barracks. He was still adorned with the leaf. He was still reciting.

The task wasn't lightened by that young fool Wilson who thought there was something funny in other people's misfortunes. He followed us, snapping his accursed camera which I could have stuffed down his gullet with the greatest of pleasure. He was too happy about the fact that there wasn't any goo on him.

Jay Score, Brennand, Armstrong, Peterson and Drake met us as we lumbered awkwardly, across the sward. They looked curiously at Jepson, listened to him with much respect. We warned them not to touch. The pair of us weren't feeling too sprightly by the time we reached the *Marathon*. Jepson's weight was only two thirds normal, but after five hundred yards he seemed like the last remains of a glutinous mammoth.

We dumped him on the grass below the open lock, perforce sitting with him. The faint booming sound was still coming out of the forest. Jay went inside the ship, brought out Sam and Wally to see what they could do about the super-adhesive. The stuff was stiffening, growing gradually harder. My hands and fingers felt as if they'd been set into glassite gloves.

Sam and Wally tried cold water, lukewarm water and hot water, but none of it did any good. Chief Engineer Douglas obliged them with a bottle of rocket fuel. That didn't work either. They had a go with some special gasoline which Steve Gregory kept for the crew's cigarette lighters. They wasted their time. That gasoline could play hell with rubber, but it couldn't dissolve this stuff.

"Stick it, fellers!" advised Wilson, cackling loudly. Jepson made sulphuric mention of this idiot's parents. I enlarged upon his grandparents. Jepson turned to the subject of his nonexistent progeny. Molders looked stolid, said nothing. "You sure are in a fix," went on Wilson. "By gum!"

Then Sam came out with some iodine. It didn't work, but it did make a terrible stink. Molders permitted his face to look slightly pained. Some nitric acid caused bubbles on

the surface of the semihard goo, but did no more than that. It was risky stuff to use, anyway. Frowning, Sam went back to look for something else, passed Jay Score coming out to see how we were doing. Jay stumbled as he got near, a strange thing for him to do considering his superhuman sense of balance. His solid three hundred pounds nudged young Wilson between the shoulder blades and that grinning ape promptly flopped against Jepson's legs. Wilson struggled and changed his tune, but stayed stuck. Jepson gave him the sardonic ha-ha, and the other didn't enjoy it a bit.

Picking up the dropped camera, Jay dangled it in one powerful hand, said contritely, "I never missed a step before. It is most unfortunate."

"Unfortunate, hell!" yelled Wilson.

Same came out with a big glass jar, dribbled its contents over my gooey hands. The ghostly green covering at once thinned into a weak slime and my hands came free.

"Ammonia," remarked Sam. He needn't have mentioned it—I could smell the pungent stuff. It was a good solvent, and he soon had us cleaned up.

Then I chased Wilson three times around the ship. He was too fast for me. We were just about to go aboard to tell our tale to the skipper when that tree started threshing again. You could see its deadly branches beating the air and hear the violent *swoosh* of them even at that distance. Pausing beneath the lock, we watched the spectacle wonderingly. Suddenly, Jay Score spoke, his voice metallic, harsh.

"Where's Kli Yang?"

None of us knew. Now I came to think about it, I couldn't recall him being with us while we dragged Jepson home. The last I remembered of him was when he stood beside me under that tree and his saucer eyes gave me the creeps by carefully scanning two opposite branches at once. Armstrong shot into the ship, came out with the report that Kli Yang definitely wasn't there. He own eyes as saucerlike as the missing Martian's, Wilson said that he didn't remember Kli Yang coming out of the forest. Upon which we snatched up our needlers and made for that tree at the run. All the while, the tree continued to larrup around like a crazy thing tied down by its own roots.

Reaching the monstrous growth, we made a circle just beyond the sweep of its treacherous leaves, had a look to see where the

Martian was wrapped in glue. He wasn't wrapped in glue. We found him forty feet up the trunk, five of his powerful tentacles clamped around its girth, the other five embracing the green native we'd pursued. His captive was struggling wildly and futilely. all the time yelling a high-pitched stream of gibberish.

Carefully, Kli Yang edged down the trunk. The way he looked and moved made him resemble an impossible cross between a college professor and an education octopus. His eyes rolling with terror, the native battered at Kli's glassite helmet. Kli blandly ignored the hostility, reached the branch that had caught Jepson, didn't descend any further. Still grasping the furiously objecting green one, he crept along the whipping limb until he reached its leafless end. At that point, he and the native were being waved up and down in twenty-five feet sweeps.

Timing himself, he cast off at the lowermost point of one beat, scuttled from reach before another eager branch could swat him. There was a singing howl from the nearer part of the forest and something that looked like a blue-green coconut shot out of the shadows and broke at Drake's feet. The thing was as thin and brittle as an empty eggshell, had a white inner surface, and contained nothing. Kli Yang took no notice of the howls or the missile, bore his still struggling captive toward the *Marathon*.

Hanging back, Drake peered curiously at the coconut or whatever it was, struck the fragments of shell with his boot. He caught the full benefit of something invisible that was floating up from it, sucked in his cheeks, screwed up his eyes and backed away. Then he retched. He did it so violently that he fell over as he ran. We'd the sense to pick him up and rush him after Kli without getting too nosy about what had bitten him. He continued to regurgitate all the way across the grass, recovered just as we came under the ship's bulging side.

"Holy smoke!" he wheezed, "what a stench! It'd make a skunk smell like the rose of the animal world." He wiped his lips. "My stomach turned right over."

Looking up Kli, we found that his captive had been conducted to the gallery for a peace-making feed. Kli dragged off his helmet, said, "That tree wasn't so difficult for me to mount. It walloped around as I went up, but it couldn't get at anything on its own trunk." He sniffed, rubbed his flat, Red Planet face with the flexible tip of a great tentacle. "Don't know how you bipeds can

swallow this soup which you're pleased to regard as air."

"Where'd you find the greenie, Kli?" asked Brennand.

"He was stuck to the trunk more than forty feet up. His whole front fitted neatly into an indentation shaped like himself, and his back matched the trunk so perfectly that I couldn't see him until he moved uneasily as I got near him." He picked up the helmet. "It was a most wonderful sample of camouflage." He looked at the helmet with one eye, kept the other on the interested Brennand, made a gesture of disgust. "How about pulling down the pressure some place where higher forms of life can live in peace?"

"We'll pump out the port lock," Brennand promised. "And don't be so all-fired snooty, you caricature of a rubber spider."

"Bah!" said Kli, with great dignity. "Who invented chess? And who can't even play duck-on-the-rock without grabbing the grief?" With that insulting reference to Terrestrial ineptness at chess, he slapped on his glassite dome. I pumped it down for him. "Thanks!" he said, through the diaphragm.

Now to get the low-down on the greenie.

Captain McNulty himself interviewed the native. The skipper sat grandly behind his metal desk, eyed the jittery captive with a mixture of pomposity and kindness. The native stood before him, his black optics jerking around fearfully. At that close range you could see he was wearing a loincloth that matched his own skin. His back was several shades darker than his front, coarser, more fibrous, with little nodules here and there—perfect simulation of the surface of the trunk of the tree in which he'd sought refuge. Even his loincloth was darker at the back than at the front. His feet were broad and bare; the toe double-jointed and as long as the fingers of his hands. Except for the loincloth, he was completely naked and had no weapons. The queer chrysanthemum growing out of his chest attracted all eyes.

"Has he been given a meal?" asked the skipper, full of solicitude.

"He was offered one," Jay told him. "He refused it. As far as I can make out, he wants to go back to his tree."

"Hm-m-m," grunted McNulty. "In due time, in due time." He assumed the expression of a benevolent uncle, said to the native, "What's your name?"

The green one grasped the note of interrogation, waved his arms, broke into an

untranslatable tirade. On and on he went, helping his gabble with many emphatic but incomprehensible gestures. His language was very liquid, his voice singsong.

"I see," murmured McNulty as the flood of talk petered out. He blinked at Jay Score. "Think this fellow is telepathic, like those lobster things were?"

"It is much to be doubted. I'd put him at the level of a Congo pygmy—maybe lower. He doesn't even possess a simple spear, let alone bow and arrow or a blow-pipe."

"Yes, that's how he looks to me." Still maintaining his soothingly paternal air, McNulty went on, "All right, Jay. There's no common basis on which we can gain his understanding at the start, so I guess we'll have to create one. We'll dig up a natural linguist, set him to learning the rudiments of this fellow's language and teaching him some of ours."

"I've got the advantage of a mechanical memory—let me have a try," suggested Jay. He approached the green native, his huge, well-proportioned body moving quietly on the sponge rubber cushions of his dogs. The native didn't like his size or his bearing, neither did he approve of those brightly lit eyes. He backed away from Jay, backed right to the wall, his optics darting hither and thither.

Jay stopped as he saw the other's fear, slapped his own toppiece with a hand that could have knocked mine clean off my neck. He said, "Head." He did it half a dozen times, repeating, "Head, head."

The green one wasn't so stupid; he caught on, faltered, "*Mah*."

Touching his own head again, Jay said, inquiringly, "*Mah*?"

"*Bya!*" lifted the other, starting to recover his composure.

"See, it's dead easy," approved McNulty. "*Mah*—head; *bya*—yes."

"Not necessarily," Jay contradicted. "It all depends upon how his mind translated my action. *Mah* might mean head, face, man, hair, god, mind, thought, or alien, or even the color black. If he's thinking of my hair and his own, then *mah* probably does mean black, while *bya* may mean not yes, but green."

"Oh, I hadn't thought of that." The skipper looked crushed.

"We'll have to carry on with this performance until we've picked up enough words to form lame sentences. Then we can de-

duce further meanings from the context. Give me a few days."

"Go ahead. Do your best, Jay. We can't expect to be able to talk turkey in the first five minutes. It isn't reasonable."

Taking our prisoner to the rest room, Jay summoned Minshull and Petersen. He thought three might just as well learn something as one. Minshull and Petersen were both hot on languages, speaking Esperanto, Ido, Venusian, low Martian and high Martian. They were the only ones aboard the ship who could give our chess maniacs a boiling in their own lingo.

I found Sam in the armory, waiting to hand in the stuff he'd taken out, and I said to him, "What did you see from the lifeboat, Sam?"

"Not so much. We weren't out long enough. Didn't get more than a hundred and twenty miles away. There was forest, nothing but forest with glades here and there. A couple of glades were the size of counties. The biggest of them lay at the end of a long lake. There were several rivers and streams."

"Any signs of life?"

"None." He gestured down the passage toward the rest room where Jay and the others were cross-examining the native. "It seems there's superior life in the forest, but you can detect no signs of it from above. Wilson's processing his reel—I doubt whether his camera caught anything that we missed."

"Ah, well," I said, "one twenty miles in one direction is nothing from which to estimate a world. I don't let myself be deluded, not since that drummer sold me a can of striped paint."

He chuckled. "Didn't it come out?"

"I laid it wrong side up," I told him.

It was right in the middle of that bantering that a powerful idea smote me. I followed him out of the armory, made a rush to the radio room. Steve Gregory was sitting by his instruments trying to look busy doing nothing. I was all set to wake him with my brain wave.

IV.

As Steve looked up inquiringly, I said to him, "Hey, how about combing the bands?"

"Uh?"

"Remember those weird whistles and waterfalls you picked up on Mechanistria?

Well, if anyone's radiating here, couldn't you detect 'em?"

"Sure." He kept his bushy eyebrows still for once, but spoiled it by waggling his ears. "If anyone was radiating."

"Go ahead and find out. It'll tell us something. What're you waiting for?"

"Have you kept those needlers cleaned and charged?" he asked.

I stared at him. "You bet I have! They're always ready for action. That's my job."

"And this one's mine," he said, dryly. He waved the ears again. "You're hours behind the times. I searched the ether immediately we landed, got nothing but a faint hiss on twelve point three meters. It was Rigel's characteristic discharge and came from that way. D'you think I'm that snake-armed snorer Sug Farn?"

"No, I don't. Sorry, Steve—it just struck me as a bright idea."

"Oh, it's O.K., sergeant," he said, amiably. "Every man to his job and every tail mechanic to his dirt." Idly he twiddled the shining dials of his slow-motion selectors.

The loud-speaker coughed as if it was clearing its throat, then announced in sharp tones, "*Pip-pip-whop! Pip-pip-whop!*"

Nothing could have been better calculated to upset the determined serenity of his brows. I'll swear that after they'd entered his hair they continued over the top, down the back and lodged under his collar.

"Morse," he said, in the complaining tone of a hurt child.

"I always thought Morse was a code, not a mode," I remarked. "Anyway, if it is Morse, you'll be able to translate it." I paused as the loud-speaker shouted me down with, "*Pip-pipper-pee-eep-whop!*" then I concluded, "Every ash to his ash can."

"Tain't Morse," he contradicted himself. "But it's spark signals." He might have frowned if it hadn't taken too long to drag the brows back. Giving me one of those tragic looks you get sometimes, he snatched a pad, started recording the impulses.

The spacesuits, pom-pom chargers and other things had to be done, so I left him, returned to the armory, got on with my work. He was still fiddling around when darkness fell. So were Jay and his gang, but not for long.

The sun sunk, its long, greenish streamers faded from the sky and a velvet pall covered the forest and the glade. I ambled along the passage toward the gallery and was passing the rest room when its door jerked open and the green native burst out. His face was

desperate, his legs going as if there was a thousand international smackers tied to the tape. Minshull yelped somewhere back of him as he jumped full tilt into my ready arms. The greenie squirmed like an eel, beat at my face, tried to kick my legs off my torso with his bare feet. His rough, harsh body exuded a weak odor of pineapple and cinnamon.

The others pounced out, got him tight, talked to him in halting words until he relaxed. His eyes shifty, anxious, he jabbered excitedly to Jay Score, making urgent gestures and waving his woody arms around in a way that reminded me of branches beating the air. Jay soothed him with fair if faltering speech. It looked like they'd picked up enough words to get along, though not enough to understand each other perfectly. Still, they were managing.

Eventually, Jay said to Petersen, "Tell the skipper I want to let Kala go."

Petersen cleared off, came back in a minute. "He says do whatever you think is best."

"Good." Conducting the native to the opening of the starboard lock, Jay yapped to him briefly, let him go. The greenie dived off the rim. Someone in the forest must have owed him for a loincloth because his feet made rapid brushing sounds as he fled across the turf. Jay stood on the rim, his flaming orbs staring into outer gloom.

"Why let him go, Jay?"

Turning, he said to me, "I've tried to persuade him to come back at sunup. He may, or he may not—it remains to be seen. We didn't have time to get much out of him, but his language is exceedingly simple and we picked up enough of it to learn that he calls himself Kala of the tribe of Ka. All members of his tribe are named Ka-something, such as Kalee, Ka'noo, or Kaheer."

"Something like the Martians with their Klis and Leids and Sugs," I remarked.

"Something," he agreed, not caring what the Martians might think of being compared with the green aborigines. "He also told us that every man has his tree, every gnat its lichen. I can't understand what he means by that, but he satisfied me that his life depended upon him being with his tree during darkness. It was imperative. I tried to delay him, but his need was almost pitiful. He was willing to die rather than be away from his tree."

"Sounds silly to me." I blew my nose,

grinned widely. "It's sounds even sillier to Jenson."

Jay stared again into the deep murkiness from which came strange, nocturnal scents and those everlasting pulsations. Quietly, he said, "I also learned that there are others in the dark, others mightier than the Ka. They have much *gamish*."

"They have what?"

"Much *gamish*," he repeated. "That word defeated me. He used it again and again. He said that the *Marathon* had much *gamish*, I had much *gamish* and that Kli Yang had very much *gamish*. Captain McNulty, it appeared, had only a little. The Ka have none at all."

"Was it something of which he was afraid?"

"Not exactly. As far as I could make out, anything unusual or surprising or unique is chock-full of *gamish*. Anything just abnormal has a lesser amount of *gamish*. Anything ordinary has none at all."

"This," I said, "goes to show the difficulties of communication. It isn't as easy as the people back home think it ought to be."

"No, it isn't." His gleaming optics shifted toward Armstrong leaning against the pom-pom. "You doing this guard?"

"Until twelve. Kelly follows me."

Picking Kelly for guard was poor psychology. That tattooed specimen was welded to a three-foot spanner and in any hot moment was liable to wield said instrument in preference to such new-fangled articles as pom-poms and needlers. Rumor had it that he'd held the lump of iron at his wedding and that his wife had gained a divorce on account of the thing's effect on her morale. My private opinion was that Kelly had a Neanderthal mind.

"We'll shut the lock," decided Jay, "fresh air or no fresh air." That was characteristic of him, and what made him seem so human—he could mention fresh air as if he used it himself. The casual way he did it made you forget that he'd never taken a breath since the day old Knud Johanssen stood him on his dogs. "Let's plug in the turnscrew." Turning his back upon the throbbing gloom, he started to walk into the lighted lock, treading carefully in the cutout of the threads.

A piping voice sprang from the darkness; it ejaculated, "*Nou baiders!*"

Jay stopped dead. His eyes were glowing. Feet padded outside just underneath the lock. Something spherical and glassy soared

through the worm, went over Jay's left shoulder, broke to shards on the top recoil chamber of the pom-pom. A thin, golden liquid splashed around, vaporized instantly.

Reversing, Jay faced the black opening. Armstrong got to the wall, put out a thumb to jab the general alarm stud. Without touching the stud, Armstrong went down as if batted by an invisible club. My needler out, its muzzle extended, I began to move cautiously forward, saw the glittering thread of the worm framing a picture of Jay standing against the ebony background. It was a hell of a mistake—I should have gone for that stud. Three steps, and the whole picture swelled like a blown bubble, the circle widened, the threads of the worm became broad and deep with Jay as a gigantic shape in the middle. The bubble burst and I went down as soggly as Armstrong had done.

Don't know how long I stayed that way, for when I opened my eyes it was with the faint memory of hearing much shouting and stamping of feet around my prostrate form. Things must have happened over and all around me while I lay like a corpse. Now I was still flat. I reposed full length on deep, dew-soaked turf with the throbbing forest close on my left, the indifferent stars peering at me from the vault of night. It was bound up like an Egyptian mummy. Jepson was another mummy at one side of me; Armstrong and several more at the other.

Several hundreds of yards away, noises were still spoiling the silence of the night, a mixture of occasional Terrestrial oaths and many queer, alien pipings. The *Marathon* lay over there; all that could be seen of her in the general blackness was the funnel of light pouring from her open lock. The light flickered, waxed and waned, once or twice was momentarily obliterated. There was a struggle on that shaft of light which became blocked as the light swayed to and fro.

Jepson was snoring as if it was Saturday night in the old home town, but Armstrong was in full possession of his wits and tongue. He cursed luridly. Rolling over, he started to chew at the knots of Blane's bindings. Something vaguely human emerged silently from the darkness, smote downward. Armstrong went quiet.

Blinking my eyes, I adapted them enough to make out many more noiseless shapes standing around us. Keeping still and behaving myself, I thought noncomplimentary thoughts about McNulty, the *Marathon*, old Flettner who'd invented the ship and all the public-spirited guys who'd backed him

morally and financially. I'd always had the feeling that sooner or later they would be the death of me.

Deep down inside me, a tiny voice said, "Sergeant, d'you remember that promise you made your mother about obscene language? D'you remember when you gave that guppy a can of condensed milk for a pinfire opal not as big as the city clock? Repent, sergeant, while there yet is time!"

The distant pipings arose crescendo, the few earthly voices died out. There sounded occasional smashings of light, brittle things. More shapes brought more bodies, dumped them beside us, melted back into the gloom. I wish I could have counted the catch, but darkness didn't permit it. All the newcomers were unconscious. They revived rapidly. I could recognize Brennand's angry voice and the skipper's asthmatic breathing.

A blue star shone through the thin fringe of a drifting cloud as the fight ended. The succeeding pause was ghastly; a solemn, brooding silence broken only by the scuffle of many feet through the grass and the steady pumping in the forest.

Forms gathered around us in large numbers. The glade was full of them. Hands lifted me, felt my bonds, tossed me into a wicker hammock. I went up shoulder-high, was borne along. You'd have thought I was a defunct wart hog being toted in some sportsman's line of native porters. Just meat—that was me. Just a trophy of the chase. I wondered whether God would confront me with that guppy.

The caravan filed into the forest, my direction of progress being head first. Another hammock followed my feet and I could sense rather than see a string of them farther behind. Jepson was the sardine following me; he went along making a loud recitation about how he'd got tied up ever since he landed in this unprintable world. Curving warily around one dim tree, our line marched boldly under the next, dodged the third. How the deuce our bearers could tell one growth from another in this lousy light was beyond my comprehension.

We'd just got deep into the deeper darkness when a tremendous explosion sounded way back in the glade and a column of fire lit up the whole sky. Even the fire looked faintly green. Our line stopped. Two or three hundred voices cheeped querulously, running from the front past me to a hundred yards farther back. "They'd blown up the good old *Marathon*," thought I. "Ah, well,

all things come to an end, including the flimsiest hope of returning home.

The squeakers were drowned out as the noisy pillar of flame built itself up to a roar. My hammock started to jump as its bearers reacted. The way they put on the pace had to be experienced to be believed; I almost flew along, dodging this tree, but not that, sometimes avoiding half-seen growths that weren't trees at all. My heart was in my boots.

The bellowing back in the glade suddenly ended in a mighty thump, and a crimson spear flung itself into the sky and stabbed the clouds. It was a spectacle I'd seen before: it was a spaceship going up. It was the *Marathon*!

Were these creatures so talented that they could pick up a thoroughly strange vessel and take it wherever they wanted it? Were these the beings described as superior to the Ka? The whole thing was incongruous—expert astronauts carrying their prisoners in wicker hammocks. Besides, the way they'd jabbered and put on the pace suggested that the *Marathon*'s spurt of life had taken them by surprise. The mystery was one I couldn't solve.

While the fiery trail of the spaceship arced northward, our party pressed hurriedly on. There was one stop during which our captors congregated together, but their continual piping suggested that they hadn't stopped for a meal. Twenty minutes afterward there was another halt and a hell of a row in front. Guards kept close to us while a short distance ahead sounded a vocal uproar in which many voices vied with a loud mewing and much beating of great branches. I tried to imagine a bright green tiger.

Things went *phut-phut* and the mewing ended in a choking cough. The sound of whipping branches died away. We moved on, making a wide curve around a monstrous growth that I strained in vain to see. If only this world had possessed a moon. But there was no moon. There were only the stars and the clouds and the forest from which came that all-pervading beat.

Dawn broke as the line warily bent away from a small clump of apparently innocent briars. We came to the bank of a wide river. Here, we could give our guards the once-over as they shepherded bearers and burdens down the bank. They were creatures very much like the Ka, only taller, more slender, with big, intelligent eyes. They had the same fibrous skins, grayer, not so green, and the same chrysanthemums on their

chest. Unlike the Ka, their middles were clothed in pleated garments, they had harness of woven fiber, and wooden accouterments which included things like complicated blowguns and bowl-shaped vessels having a bulbous container in the base. A few also bore panniers holding small spheres like the one that had laid me flat in the air lock.

Craning my head, I tried to see more, but could only discern Jepson in the next hammock and Brennd in the one behind that. The next instant, my hammock was unceremoniously dumped by the water's brink, Jepson's beside mine, the rest in a level row.

Jepson screwed round his head, looked at me, and said, "The punks!"

"Take it easy," I suggested. "If we play with them, they may give us more rope."

"And," he said, viciously, "I don't like guys who try to be funny at the wrong time."

"I wasn't trying to be funny," I snapped. "We're all bound to hold our own opinions, aren't we?"

"There you go again!" He writhed around on his hammock, tried to stretch his fastenings. "Some day I'll bind you!"

It's no use talking with a guy like that, so I didn't answer. The light waxed stronger, shone greenly through the thin, green mist hanging over the green river. I could now see Blaine and Minshull tied up beyond Armstrong, and the portly form of McNulty beyond them. We'd traveled about two hours.

Ten of our captors went along the line opening jackets and shirts, baring our chests. They had with them a supply of the bowls with bulbous containers. Two of them pawed my uniform apart, got my chest exposed, stared at it like Antony stared at Cleopatra. Something about it struck them as wonderful, and it wasn't my reserve beard. It didn't require much brains to tell that they missed my chrysanthemum and couldn't see how I'd got through life without it. They called their fellows, the whole gang debated the subject while I lay like a sacrificial virgin. Then they decided that they'd struck a new line of research and went hot along the trail.

Seizing Blaine and the boob who'd played duck-on-the-rock, they untied them, stripped them down to the raw, examined them as if they were prize cattle at an agricultural exhibition. One of them prodded Blaine in the solar plexus, whereat he jumped the fellow

with a savage whoop and brought him down. The other nudist joined in. Armstrong, who never had been a ninety-pound weakling, promptly burst his bonds, came up dark-faced with the effort and roared into the fray. Fragments of his mangled hammock swung and bounced on his beefy back.

All along the line the rest of us made mighty efforts to break free, but in vain. Green ones centered on the scene of the struggle, brittle spheres plopped all around the three madly fighting Earthmen. The tail mechanic and Blaine collapsed together, going down as if in a sleep. Armstrong shuddered and roared, teetered and pulled himself to, held out long enough to toss two natives into the river and slug the daylighters out of a third. Then he, too, dropped.

V.

THE green ones dragged their fellows from the river, dressed the slumber-wrapped Blaine and the other, added Armstrong, tied all three securely. Once more they conferred together. I couldn't make head or tail of their canary talk, but I got the notion that, in their opinion, we had an uncertain quantity of *gamish*.

My bonds began to irk. I'd have given much for the chance to go into action and bash a few green heads. Twisting myself, I used a lackluster eye to survey a tiny shrub growing near the side of the hammock. The shrub jiggled its midget branches and emitted a smell of burned caramel. Local vegetation was all movement and stinks.

Abruptly, the green ones ended their talk, crowded down to the bank of the river. A flotilla of long, narrow, shapely vessels swept around the bend, foamed under projecting branches of great trees, cut in to the bank. We were carted aboard, five prisoners to the boat. Thrusting away from the bank, our crew of twenty pulled and pushed rhythmically at a row of ten wooden levers on each side of the boat, drove the vessel upstream. We went along at a fair pace, left a shallow wake on the surface of the sluggish river.

"I had a grandfather who was a missionary," I told Jepson. "He got himself in trouble like this."

"So what?"

"He went to pot," I said.

"So can you," snapped Jepson. He strained futilely at his bonds.

For lack of anything better to do, I watched the way in which our crew handled

our vessel, came to the conclusion that the levers worked two large pumps or a battery of small ones, and that the vessel got along by sucking in water at the bow and blowing it out at the stern. Later, I found I was wrong. Their method was much simpler than that. The levers connected with twenty split-bladed paddles jutting horizontally a foot or two below the water line. The two flaps of the blades closed together as each paddle drove forward, opened as it swept backward. By this means they got along a good deal faster than they could have done with oars since the subsurface paddles only moved forward and back with their weight on the boat—they didn't have to be raised turned and dipped by the muscles of the rowers.

The sun climbed higher as we progressed steadily upriver. On the second bend, the river split, its current moving more rapidly either side of a rocky islet about a hundred yards long. A group of four huge trees stood at the upstream end of the islet, their trunks and limbs a somber green that verged on black. Each of them had one horizontal spray of branches above which the trunk continued to a feathery crest forty feet higher. Every branch ended in half a dozen powerful twigs which curved downward like the fingers of a clutching hand.

Their crews speeding up the levers, the string of boats took the right-hand channel over which reached the largest of those great branches. As the first boats prow came underneath, the branch twitched its fingers hungrily. It was no illusion; I saw it as clearly as I can see my trip bonus when they slide it toward me across the mahogany. That limb was getting all set to grab, and from its size and spread I reckoned it could pluck the entire boatload out of the water and do things of which I didn't care to think.

But it didn't do it. Just as that boat entered the danger area its helmsman stood up, bawled a string of gibberish at the tree. The fingers relaxed. The helmsman of the next boat did the same. And the next. Then mine. Flat on my back, as ready for action as a corpse, I gaped at that enormous neck-wringer while all too slowly it came on, passed above and fell behind. Our helmsman went silent; the one in the following boat took up the tale. There was dampness on my spine.

Five miles farther on, we made for the shore. My head was toward that side. I didn't get a view of the buildings until the greenies contemptuously tossed out my ham-

mock, released me from the thing, stood me on my feet. I promptly lost balance and sat down. Temporarily, my dogs were dead. Rubbing them to restore the circulation, my curious eyes examined this dump that might have been anything from a one-horse hamlet to a veritable metropolis.

The buildings were made of light green wood, all cylindrical, of uniform height and diameter, and each had a big tree growing through its middle. The foliage of each tree extended farther than the radius of each house, thus effectively hiding it from overhead view. Nothing could have been better calculated to conceal the place from the air, though there wasn't any reason to suppose that the inhabitants feared any menace from above.

Still, the way in which trees and buildings shared the same sites made it quite impossible to estimate the size of the place, for beyond the nearer screen of buildings were trees, trees and more trees, each of which may have shielded a house. I couldn't tell whether I was looking at a kraal or at the riverside suburb of some place running right over the horizon. It was little wonder that the exploring lifeboat had observed nothing but forest. Its crew could have scouted over an area holding a population of many millions and have thought it nothing but jungle.

Their weapons ready, their eyes alert, a horde of the green ones clustered around us while some of them finished the task of releasing the prisoners. The fact that we'd arrived in a thing like the *Marathon* didn't awe them one little bit. My feet were obedient now, so I lugged on my jackboots, stood up and looked around. It was then that I got two shocks.

The first hit me as I scanned my companions in misery. They consisted of little more than half the complement of the *Marathon*. The rest weren't there. One hammock held a still, lax figure that I recognized as the body of the guy who'd caught the darts soon after we landed. Upon another reposed the awake but dreamy, disinterested form of Sug Farn. But he was the only Martian present. None of the others were there. Neither were Chief Douglas, Bannister, Kane, Richards, Kelly, Jay Score, Steve Gregory, young Wilson and a dozen others.

Were they dead? It didn't seem so—else why should the greenies have transported one body and not the others? Had they

escaped, or did they form a second party of prisoners that had been taken elsewhere? There was no way of determining their fate, yet it was strange that they should be missing.

I nudged Jepson. "Hey, have you noticed—"

Came a sudden roar over that river and all the green ones stared upward and gesticulated with their weapons. They made mouth motions, but the roar drowned them out. Whirling around, I could feel my eyes bugging as the *Marathon's* sleek pinnace dived within a few feet of the surface of the river, soared upward again. It vanished over the treetops, drummed into the distance.

Then I could hear it sweeping round in a wide circle. Its note accelerated as it went into another dive, it shot back into view, swooped so low that it touched the surface of the water, whisked a shower of green droplets behind it and sent a small wash lapping into the bank. Then it was gone in another swift and uproarious soar, bulleting past at such a rate that it was impossible to see the pilot's cabin.

Jepson spat on his fist, gave the greenies a sour eye, and said, "They've got it coming to them, the lice!"

"Tut!" I chided.

"As for you," he went on. He didn't get a chance to say more because a tall, thin, mean-looking greenie suddenly picked on him.

This one gave him a contemptuous shove in the chest and piped something on a rising note of interrogation.

"Don't you do that to me!" snarled Jepson, giving an answering shove.

The green one staggered backward, recovered his balance, kicked out with his right leg. I thought he was trying to give Jepson a crack on the shins, but he wasn't. He was throwing something with his foot and what he threw was alive. All I could see of it was something that may or may not have been a tiny snake. It had no more length and thickness than a pencil and, for a change, it wasn't green but a bright orange color relieved by small, black spots. It landed on Jepson's chest, bit him, then flicked down his front so fast that I could hardly follow it. Reaching the ground, it made the grass fairly whip aside as it streaked back to its owner.

Curling around the green one's ankle, it went supine, looking exactly like a harmless leg ornament. A very small number of the

other natives were wearing similar objects all of which were orange and black excepting one which was yellow and black.

Jepson bugged his eyes, opened his mouth, but emitted no sound. He teetered. The guy wearing the yellow and black lump of wickedness was standing right at my side watching Jepson with academic interest. I broke his neck. The way it snapped reminded me of a rotten broomstick. That thing on his leg left him the moment he was mutton, but fast as it moved it was too late. Jepson fell onto his face just as my jackboot scrunched the thing into the turf.

There was a hullabaloo all around me. I could hear McNulty's anxious voice yelping, "Men! Men!" Even at a time like this the crackpot could dwell on the vision of himself being demoted for tolerating maltreatment of natives. Armstrong kept bawling, "Another bugger!" and each time there followed a loud splash in the river. Things were going *phut-phut* and spheres were crashing again. Jepson lay like one dead while combatants stumbled over his body. Brennan barged up against me. He was breathing in quick puffs and trying to gouge a black eye out of a green face.

By this time I'd got myself another aborigine and proceeded to take him apart. I tried to imagine that he was a fried chicken of which I never seem to get any more than the piece that goes last over the fence. He was hard to hold, this greenie, and bounced around like a rubber ball. Over his swaying shoulder I could see Sug Farn juggling with five at once and envied him the anacondas he used for limbs. My opponent stabbed his fingers into the chrysanthemum I didn't possess, looked surprised at his own forgetfulness, was still trying to think of something else as he went into the river.

Then half a dozen spheres cracked open at my feet and the last I remember hearing was Armstrong bellowing just before a splash. The last I remember seeing was Sug Farn suddenly shooting out a spare tentacle he'd temporarily overlooked and using it to arrange that of the six greenies who jumped me only five landed. The other one was still going up as I went down.

For some reason I didn't pass out as I'd done before. Maybe I only got a half-dose of whatever the spheres gave forth, or perhaps they contained a different mixture. All I know is that I went down with five aborigines aboard my ribs, the skies spun crazily, my brains turned to porridge. Then,

astonishingly, I was awake, my upper limbs again tightly bound.

Over to the left a group of natives made a heaving pile atop some forms that I couldn't see but could easily hear. Armstrong was doing some championship hog-calling underneath that bunch which, after a couple of hectic minutes, broke apart to reveal his tied body along with those of Blaine and Sug Farn. On my right lay Jepson, his limbs quite free, but the lower ones apparently helpless. There was now no sign of the pinnacle.

Without further ado the greenies whisked us across the sward and five miles deep into the forest, or city, or whatever it ought to be called. Two of them bore Jepson in a sort of wicker hamper. There were still as many trees as houses. Here and there a few impassive citizens came to the doors of their abodes and watched us dragging on our way. You'd have thought we were the sole surviving specimens of the dodo.

Minshul and McNulty were right behind me in this death parade, and I heard the latter say, pontifically, "I shall speak to their leader about this. I shall point out to him that all these unfortunate struggles are the inevitable result of his own people's belligerence."

"Undoubtedly," afforded Minshul, with a touch of sardonic heartiness.

"Making all allowances for mutual difficulties of understanding," McNulty went on, "I still think that we are entitled to be received with a modicum of courtesy."

"Quite," said Minshul. His voice was now solemn, like that of the president of a mortician's convention. "And we consider that our reception left much to be desired."

"Precisely my point," said the skipper.

"And any further hostilities would be most deplorable," continued Minshul.

"Of course!" McNulty enthused.

"In which event we'll tear the guts out of every greenie on this stinking planet."

"Eh?" McNulty paused in his pace. His voice went up in pitch.

"Nothing," lied Minshul, amiably. "I didn't even open my mouth."

What the outraged shipmaster intended to say remained a mystery, for at this point a greenie caught him lagging and prodded him on. With an angry snort, he speeded up, moving in introspective silence from then on.

Presently, we emerged from a long, orderly line of tree-shrouded homes and entered a glade fully twice as large as that

in which the missing *Marathon* had made its landing.. It was roughly circular, its surface level and carpeted with close-growing moss of a rich, emerald green. The sun, now well up in the sky, poured a flood of pale-green beams into this strange amphitheater around the fringes of which clustered a horde of silent, expectant natives.

The middle of the glade captured our attention. Here, as outstanding as the biggest skyscraper in the old home town, soared a veritable monster among trees. How high it went was quite impossible to estimate, but it was quite large enough to make Terra's giant redwoods look puny by comparison. Its bole was a full forty feet in diameter, and the spread of its oaklike branches looked immense even though they were way, way up there. So enormous was this mighty growth that we just couldn't keep our eyes off it. If these transc cosmic Zulus were going to hang us, well, they sure intended to do it high and handsome. Our kicking bodies wouldn't look more than a few struggling bugs dangling between Earth and heaven.

Minshull must have been afflicted by the same thought, for I heard him say to McNulty, "There's the Christmas tree! We're the ornaments. They'll draw lots for us, and the boob who gets the ace of spades will be the fairy at the top."

"Don't be morbid," snapped McNulty. "They'll be nothing so illegal."

Then a native pointed at the positive skipper and six pounced on him before he could dilate further on the subject of inter-cosmic law. With complete disregard for all the customs which the victim held holy, they bore him toward the waiting tree.

VI.

Up to that moment we'd failed to notice the drumming sound which thundered dully from all around the glade. It was strong now, and held a sinister quality in its muffled, insistent beat. The weird, elusive sound had been with us from the start; we'd got used to it, had become unconscious of it in the same way that one becomes insensitive to the ticking of a familiar clock. But now, perhaps because it lent emphasis to the dramatic scene, we were keenly aware of that deadly *throb, throb, throb*.

The green light made the skipper's face ghastly as he went forward. All the same, he still managed to lend importance to his characteristic strut, and his features had the

air of one who has unshakable faith in the virtue of sweet reasonableness. I've never encountered a man with more confidence in the law. As he walked forward, I know he was supported by the profound conviction that these poor people could do nothing drastic with him unless they first filled in the necessary forms and got them properly stamped and signed. Whenever M'Nulty died, it was going to be with official approval.

Halfway to the tree the skipper and his guard were met by nine tall natives. The latter were dressed in no way different from their fellows, yet, in some vague manner, managed to convey the impression that they were beings apart from the common herd. Witch doctors, decided my agitated mind.

Those holding McNulty promptly handed him over to the newcomers, then beat it toward the fringe of the glade as if the devil himself had appeared in the middle. There wasn't any devil; there was only that monstrous tree. Still, knowing what some growths could and did do in this green-wrapped world it was highly probable that this, the grandpappy of all trees, was capable of some unique wickedness. Of that lump of statuesque timber one thing was certain—it possessed a damned good dollop of *gamish*.

Briskly, the nine stripped McNulty to the waist. He was talking to them all the time, but he was too far away for us to get the gist of his lecture, and his captors took not the slightest notice. Again they examined his chest, conferred among themselves, abruptly started dragging him nearer to the tree. McNulty resisted with appropriate dignity. Picking him up bodily, they carried him forward.

Armstrong said, in harsh tones, "We've still got legs, haven't we?" and forthwith kicked his nearest guardian's feet from beneath him.

But before any of us could follow his example and start another useless melee an interruption came from the sky. Upon the steady drumming from the forest was superimposed another fiercer, more rapid roll which quickly merged its beasts to a rising howl. The howl waxed to an explosive roar as, swift and silvery, the pinnacle swooped low over the fateful tree.

Something dropped from the belly of the bulleting boat, something which blew out to mushroomlike shape, hesitated in its fall, then lowered gently into the head of the tree. It was a parachute! I could see a figure hang-

ing in its harness just before he was swallowed in the deeps of that elevated foliage. The distance made it quite impossible to recognize this invader from above.

The nine who were bearing McNulty dropped him unceremoniously on the sward, gazed expectantly at the tree. Strangely enough, aerial manifestations filled these natives more with curiosity than fear. The tree stood unmoving. Suddenly, amid its top branches, the thin beam of a needle ray lanced forth, touched a large branch at its junction with the trunk, and severed it. The amputated limb went whirling to the ground.

At once a thousand budlike protuberance which lay concealed between the leaves of the tree swelled up as if they were blown balloons, reached the size of giant pumpkins, and burst with a fusillade of dull pops. They gave out a light yellow mist, exuding the stuff at such a rate that the entire tree was clouded with it in less than one minute. All the natives within sight hooted like a gang of owls, turned and ran. McNulty's nine guardians also called off the ceremony they'd had in mind and started after their fellows. The needle caught two of them before they'd gone ten steps: the remaining seven doubled their pace. McNulty was left struggling with the bonds around his wrists while slowly the mist crawled toward him.

Again the beam speared high up in the tree which had grown dim within the envelope of its own fog, and again a branch went to ground. The last native had faded from sight. The creeping mist was now within thirty yards of the skipper who was standing and watching it like a man fascinated. His wrists were still tied to his sides. Deep inside the mist the popping sounds continued, though not as rapidly.

Yelling at the witless McNulty to make use of his nether limbs, we struggled furiously with our own and each other's bonds. McNulty responded no more than to shuffle backward a few yards. By a superhuman effort Armstrong burst free, snatched a jack-knife from his pants pocket, started cutting our arms loose. Minshull and Blaine, the first two thus relieved, immediately raced to McNulty who was posing within ten yards of the mist like a portly Ajax defying the power of alien gods. They dragged him back.

Just as we'd all got rid of our bonds the pinnacle came round in another wide sweep, vanished behind the column of yellow cloud and thundered away into the distance.

We gave it a hoarse cheer. Then from the mist strode a great figure dragging a limp body with each hand. It was Jay Score. He had a tiny two-way radio on his back.

He came toward us, big, powerful, his eyes aflame with their everlasting fires, released his grip on the pair of cadavers, said, "Look—this is what that vapor will do to you unless you move out plenty fast!"

We looked. These things were the remains of the two natives he'd needled, but the needlers had not caused that awful rotting of the flesh. Both leprous objects were too far gone to be corpses, not far enough to be skeletons. They were mere rags of flesh and half-eaten organs on frames of festering bone. It was easy to see what would have happened to Jay had he been composed of flesh and blood, or had he been a breather.

"Back to the river," advised Jay, "even if we have to fight our way through. The *Marathon's* going to land on the front. We must reach her at all costs."

"And remember, men," put in McNulty, "I want no unnecessary slaughter."

That was a hell of a laugh. Our sole weapons now consisted of Jay's needler, Armstrong's jackknife, and our fists. Behind us, already very near and creeping steadily nearer, was the mist of death. Between us and the river lay the greenie metropolis with its unknown number of inhabitants armed with unknown devices. Veritably we were between a yellow devil and a green sea.

We started off, Jay in the lead, McNulty and the burly Armstrong following. Behind them, two men carried Jepson who could use his tongue even if not his legs. Two more bore the body which our attackers had borne all the way from the ship. Without opposition or mishap we got a couple of hundred yards deep into the trees and there we buried the corpse of the man who was first to set foot on this soil. He went from sight with the limp silence of the dead while all around us the forest throbbed.

In the next hundred yards we were compelled to bury another. The surviving duck-on-the-rock player, sobered by the end of his buddy, took the lead as a form of penance. We were marching slowly and cautiously, our eyes alert for hidden natives, our wits ready for any untoward move by a dart-throwing bush or a goo-smearing branch.

The man in front swerved away from one tree which topped an empty and silent

greenie abode. His full attention was upon the vacant entrance to that house, and he failed to be wary of another tree under which he had moved. This growth was of medium size, had a silvery green bark, long, ornamental leaves from which dangled sprays of stringy threads. The ends of the threads came within four feet of the ground. He brushed against two of them. Came a sharp, bluish flash of light, a smell of ozone and scorched hair, and he dropped. He'd been electrocuted as thoroughly as if smitten by a stroke of lightning.

Mist or no mist, we carried him back the hundred yards we'd just traversed, buried him beside his comrade. That job was done in the nick of time. The crawling leprosy was at our very heels as we resumed our way. High in the almost concealed sky the sun poured down its limpid rays and made mosaic patterns through overhead leaves.

Giving a wide berth to this latest menace, which we named the voltree, we hit the end of Main Street. Here, we had the advantage in one way, though not in another. The houses stood dead in line and well apart; we could march along the center of the route beneath the wider gap of sky and be beyond reach of this planet's bellicose vegetation. But this made our march exposed to attack from any direction by any natives who might be determined to oppose our escape. We'd have to do the trip, one way or the other, with our necks stuck out a yard.

Sug Farn said to me, "You know, I've an idea well worth developing."

"What is it?" I demanded, hopefully.

"Supposing that we had twelve squares aside," he suggested, "we could then have four more pawns and four new master pieces. I propose to call the latter 'archers.' They would move two squares forward, and could take opponents one square sidewise. Wouldn't that make a beautifully complicated game?"

"You," I told him, "may go drown yourself!"

"As I should have known, your mental appreciation is poor." So saying, he extracted a bottle of *hooloo* scent which somehow he'd managed to retain through all the turmoil, moved away from me, and sniffed it in a deliberately offensive manner. I don't give a damn what anybody says—we don't smell like Martians say we do! These octopuses are downright liars.

Stopping both our progress and argument, Jay Score growled, "I guess this'll do." Unhitching his portable radio, he tuned it up,

said into its microphone. "That you, Steve?" A pause, then, "Yes, we're waiting about a quarter of a mile on the river side of the glade. No, there's been no opposition—yet. But it'll come, it'll come. O.K., we'll wait." Another pause. "We'll give it guidance by sound."

Turning his attention from the radio to the sky, but with one earpiece still in action, he listened intently. We all listened. For a while there was nothing but that *throb, throb, throb* which never ceased upon this crazy world, but presently came a faraway drone like the hum of an approaching bumblebee.

Jay snatched at the mike. "We've got you. You're coming nearer." The drone grew louder. "Nearer, nearer." He waited a moment. "Now you're away to one side." The drone drifted off. "No, you've swerved the wrong way." Another brief wait. The distant sound suddenly grew strong. "Heading correctly now." The drone swelled to a roar. "Right!" yelled Jay. "You're almost on us!"

He looked expectantly upward, and we followed his gaze like one man. The next instant the pinnacle raced across the sky gap at such a pace that it had come and gone in less time than it takes to draw one breath. But those aboard must have seen us for the little vessel zoomed around in a wide, graceful arc, hit the main stem a couple of miles farther down, and came up it at terrific speed. This time, we could watch it most of the way, and we yelled at it as if we were a gang of excited kids.

"Got us?" inquired Jay of the microphone. "All right, try it on the next run."

Again the pinnacle swept around, struck its former path, tore the air as it traveled toward us. It was like a monster shell from some old-time cannon. Things fell from its underside as it neared us, bundles and packages in a parachuted stream. The stuff came down as manna from heaven while the sower passed uproariously on and dug a hole in the northern sky. But for these infernal trees the pinnacle could have landed and snatched the lot of us from danger's grasp.

Eagerly we pounced on the supplies, tearing covers open and dragging out the contents. Spacesuits for all. Well, they'd preserve us from various forms of gaseous unpleasantness. Needlers, oiled and loaded, together with reserves of excitants. A small case, all sponge rubber and cotton wool, containing half a dozen atomic bombs. An ampoule of iodine and a first-aid pack apiece.

One large bundle had become lodged high up in the branches of a tree, or rather its parachute had become entangled and it was dangling enticingly from the ropes. Praying that it contained nothing liable to blast the earth from beneath us, we needed the ropes and brought it down. It proved to hold a good supply of concentrated rations and a three-gallon can of pineapple juice.

Packing the chutes and shouldering the supplies we started off. The first mile was easy; just trees, trees, trees and abandoned houses. It was on this part of the journey that I noticed that it was always the same type of tree which surmounted a house. There was no abode built around any of those goo-trees or voltrees of whose powers we now knew too well. Whether those particular trees were innocuous was something nobody seemed inclined to discover, but it was here that Minshull discovered in them the source of that everlasting throbbing.

Disregarding McNulty, who was clucking at him like an agitated hen, he tiptoed into one empty house, his needler held forward in readiness for trouble. A minute later he came out, said that the building was deserted, but that the tree in its center was booming like a tribal tom-tom. He'd put his ear to its trunk and had heard the beating of its mighty heart.

That started a dissertation by McNulty, his subject being our legal right to mutilate or otherwise harm the trees of this planet. If, in fact, they were semisentient, then in law they had the status of aborigines and as such were subject to subsection so-and-so, paragraph such 'n' such of the Intercosmic Code governing planetary relations. He got down to this with gusto and with typical disregard for the fact that he might be boiled in oil by nightfall.

When he paused for breath, Jay Score said, evenly, "Skipper, maybe these people have laws of their own and are about to enforce them!" He pointed straight ahead.

I followed his unemotional finger, then frantically poured myself into my spacesuit. This, I thought, is it! The long arm of justice was about to face me with that poor guppy.

VII.

WHAT awaited us about half a mile ahead was a vanguard of enormous, snakelike things fully as thick as my body and about a hundred feet in length. They were writhing in our general direction, their movements

peculiarly stiff and lacking in sinuosity. Behind them, also moving awkwardly forward, was a small army of bushes deceptively harmless in appearance. And behind those, hooting with the courage of those who now feel themselves secure, was a great horde of natives. The progress of this nightmarish crowd was determined by the pace of the snakish objects in front, and these crept forward in tortuous manner as if they were trying to move a hundred times faster than nature had intended them to move.

Aghast at this crazy spectacle, we stopped. The creepers came steadily on and somehow managed to convey an impression of tremendous strength awaiting sudden release. The nearer they got, the bigger they looked, and when they were a mere three hundred yards away I knew that any one of them could embrace a bunch of six of us and do more to us than any boa constrictor ever did to a hapless goat.

These were the wild ones of a vast and semisentient forest. I knew it instinctively, and I could hear them faintly mewling as they came on. These, then, were my bright green tigers, samples of the thing our captors had slaughtered in the emerald jungle. But they could be tamed, their strength and fury kept on tap. This tribe had done it. Veritably, they were higher than the Ka.

"I think I can just about make this distance," said Jay Score when the intervening space had shrunk to two hundred yards.

Nonchalantly, he thumbed an atomic bomb which could have made an awful mess of the *Marathon*. His chief weakness was that he never could appreciate the power of things that go bang. So he juggled it around in a way that made me wish him some place the other end of the cosmos, and just when I was about to burst into tears, he threw it. His powerful right arm whistled in the air as he flung the missile in a great arc.

We flattened. The earth heaved like the belly of a sick man. Huge clods of plasma and lumps of green, fibrous stuff geysered, hung momentarily in midair, then showered all around us. We got up, raced forward a hundred yards, went prone as Jay tossed another. This one made me think of volcanoes. Its blast nearly pushed me back into my boots. The uproar had scarcely ceased when the pinnace reappeared, dived upon the rear ranks of the foe, and let them have a couple there. More disruption. It tied me in knots to see what went up.

"Now!" yelled Jay. Grabbing the handi-

capped Jepson, he tossed him upon one shoulder and pounced forward. We drove with him as one man.

Our first obstacle was a great crater bottomed with tired and steaming earth and some mutilated, yellow worms. Cutting around the edges of this, I leaped a six-foot length of blasted creeper which, even in death, continued to jerk spasmodically and horribly. There were many more odd lengths writhing between here and the next crater. All were greener than any complexion, and bristled with hairlike tendrils which squirmed around as if seeking the life that had gone. The one hundred yards between craters we covered in record time, Jay still in the lead despite his heavy burden. I was sweating like a tormented bull, and I thanked my lucky star for the low gravity which enabled us to keep up this frantic pace.

Again we split and raced around the rim of the second crater. This brought us nose to nose with the enemy, and after that, all was confusion.

A bush got me. Sheer Terrestrialism made me disregard the darned thing despite all my recent experiences. I had my eyes off it, and in an instant it had shifted to one side, wrapped itself around my legs and brought me down. I went prostrate, unharmed but cursing, and the bush methodically sprinkled my space fabric with a fine gray powder. Then a long, leatherish tentacle snaked from behind me, ripped the bush from my form, tore it to pieces.

"Thanks, Sug Farn!" I breathed, got up, and charged on.

A second bellicose growth collapsed before my needler and the potent ray carried on another sixty or seventy yards and roasted the guts of a yelling, gesticulating native. Sug snatched a third bush, scattered it with scorn. The powder it emitted did not seem to affect him.

Jay was now twenty yards ahead. He paused, flung a bomb, dropped, got up and raced on. Jepson still grasped in his mighty left arm. The pinnacle howled overhead, dived, created wholesale slaughter in the enemy's rear. A needle ray spurted from behind me, lanced dangerously close to my helmet, and burned a bush. I could hear in my phone a constant and monotonous cursing as I pounded along. On my right, a great tree lashed furiously and toppled headlong, but I had neither time nor inclination to look at it.

Then a snake got Blaine. How it had sur-

vived, alone among its blasted fellows, was a mystery. It lay jerking exactly like all the other tattered bits and pieces, but it was still in one, long lump and, as Blaine jumped it, the thing curled viciously, wound around him. He shrieked into his mouthpiece, and the sound of his dying was terrible to hear. His spacesuit sank in and his blood spurted out between the folds. The sound and the sight shocked me so much that I stopped abruptly, and Armstrong blundered into me from behind.

"Get going!" he roared. With his needler he sliced the green constrictor, segmenting it with savage gusto. We charged on, perforce leaving behind Blaine's crushed and broken corpse.

Now we were through the fronting ranks and into the natives whose numbers miraculously had thinned. Brittle globes plopped all around our thudding feet, but their gaseous contents were as harmless as summer air. We were protected and, in any case, we were moving too fast to get a whiff. I needed three greenies in rapid succession, saw Jay tear off the head of another without as much as pausing in his heavy onrush.

We were gasping with exertion when unexpectedly the foe gave up. The remaining natives melted into their protecting forest just as the pinnacle roared vengefully toward them again. Our way was clear. Not slackening our pace in the slightest, and with eyes alert and weapons ready, we raced to the water front, and there, lying in the great space of bright green sward, found the sweetest sight in the entire cosmos—the *Marathon*!

It was here that Sug Farn put a scare into us, for as we sprinted joyfully toward the open port, he beat us to it, held up the stump of a tentacle, said, "It would be as well if we do not enter—yet."

"Why not?" demanded Jay. His cold, glowing eyes settled on the Martian's stump. "What the devil happened to you?"

"I was forced to shed a limb," said Sug Farn, mentioning it with the air of one to whom shedding a limb is like taking off a hat. "It was that powder. It was made of a million insects. It crawls around and it eats. It was eating me. Look at yourselves!"

By hokey, he was right! Now that I came to look at it, I could see small clusters of gray powder changing shape on my spacesuit. It was moving around. Sooner or later, it would eat its way through—and then start on me. I've never felt lousier in my life. So, keeping watch upon the fringe of the forest,

we had to spend an impatient and sweaty half-hour roasting each other's suits with needlers turned to wide jet and low power. I was cooked by the time the last microscopic louse dropped off.

Young Wilson seized the opportunity to dig out a movie camera and record our communal decontamination. This, I knew, eventually would be shown to an amused world sitting in armchair comfort far, far from the troubles surrounding Rigel. Secretly, I wished that a few surviving bugs would somehow manage to get around with the film. With a more official air, he also got shots of the forest, the river, and a couple of upturned boats with all their bivalve paddles exposed. Then, thankfully, we all piled into the spaceship.

The pinnacle was lugged aboard and the *Marathon* blew off pronto. I don't think there's ever been a time when I felt more like a million dollars than I did when normal, glorious light came through the ports and the bilious green coloring faded from our faces. With Brennand, I watched this strange, eerie world sink below us, and I can't say I was sorry to see it drop.

Jay came along, said, "Sergeant, we're not making any further landings. The skipper's decided to return to Terra at once and make a full report."

"Why?" asked Brennand. He gestured below. "We've come away with practically nothing worth having!"

"McNulty thinks we've learned quite enough." The rhythmic thum of the stern tubes sounded through his momentary silence. "He says he's conducting an exploratory expedition and not managing a slaughterhouse. He's had enough and is thinking of offering his resignation."

"The dunderhead!" said Brennand, with total lack of reverence.

"What have we learned, if anything?" I asked.

"Well, we know that life on that planet is mostly symbiotic," Jay replied. "There, different forms of life share their existence and their faculties. Men share with trees, each according to his kind. The communal point is that queer chest organ."

"Drugs for blood," said Brennand. "Bah!"

"But," Jay went on, "there were some higher than the Ka and their kind, some so high and godlike that they could depart from their trees and travel the globe, by day

or by night. They could milk their trees, transport their nourishment and absorb it from bowls. Of the partnership imposed upon them, they had gained the mastery, and, in the estimation of this planet, they alone were free!"

"How fallen are the mighty," I commented.

"Not so," Jay contradicted. "We have killed, but not conquered. The world is still theirs. We are retiring, with our losses—and we still have Jepson to cure!" He turned away.

A thought struck me, and I said to him, "Hey, what happened during that assault on the ship? And how did you keep track of us?"

"It was a losing fight, so we blew free," he replied. "After that, we followed you very easily." His eyes were always inscrutably aflame, but I will swear that there was a touch of humor in them as he went on. "You had Sug Farn with you. We had Kli Yang and the rest." He tapped his head suggestively. "The Martians have much *gamish*."

"Hell, telepathy!" yelled Brennand. "I forgot all about that. Sug Farn never said a word. That cross-eyed spider just slept every chance he got!"

"Nevertheless," said Jay, "he was constantly in touch with his fellows!"

He went along the passage, rounded the corner. Then the warning alarm sounded, and Brennand and I clung like brothers while the ship switched to Flettner drive. The green world faded to a dot with swiftness that never failed to astound me. We took fresh hold on ourselves, rubbed our distorted innards into shape. Then Brennand went to the valve of the storrad air lock, turned the control, watched the pressure gauge crawl from three pounds to fifteen.

"The Martians are inside there," I pointed out. "And they won't like that."

"I don't want 'em to like it. I'll teach those rubber caricatures to hold out on me!"

"McNulty won't like it either."

"Who cares what McNulty likes!" he yelled. Then McNulty himself came around the corner, walking with portly dignity, and Brennand promptly added, in a still louder voice, "You ought to be a darned sight more respectful and refer to him as the skipper."

When you travel the void, never mind the ship—pick the guys who're going to accompany you in it!

PARADOX LOST

By FREDRIC BROWN

Well—the suggestion may be slightly cockeyed, and the story thoroughly wacky—but something did destroy the dinosaurs—

A BLUEBOTTLE fly had got in through the screen, somehow, and it droned in monotonous circles around the ceiling of the classroom. Even as Professor Dolohan droned in monotonous circles of logic up at the front of the class. Shorty McCabe, seated in the back row, glanced from one to another of them and finally settled on the bluebottle fly as the more interesting of the two.

"The negative absolute," said the professor, "is, in a manner of speaking, not absolutely negative. This is only seemingly contradictory. Reversed in order, the two words acquire new connotations. Therefore—"

Shorty McCabe sighed inaudibly and watched the bluebottle fly, and wished that he could fly around in circles like that, and with such a soul-satisfying buzz. In comparative sizes and decibels, a fly made more noise than an airplane.

More noise, in comparison to size, than a buzz saw. Would a buzz saw saw metal? Say, a saw. Then one could say he saw a buzz saw saw a saw. Or leave out the buzz and that would be better: I saw a saw saw a saw. Or, better yet: Sue saw a saw saw a saw.

"One may think," said the professor, "of an absolute as a mode of being—"

"Yeah," thought Shorty McCabe, "one may think of anything as anything else, and what does it get you but a headache?" Anyway, the bluebottle fly was becoming more interesting. It was flying down now, toward the front of the classroom, and maybe it would light on Professor Dolohan's head. And buzz.

No, but it lighted somewhere out of sight behind the professor's desk. Without the fly

to solace, Shorty looked around the classroom for something else to look at or think about. Only the backs of heads; he was alone in the back row, and—well, he could concentrate on how the hair grew on the backs of people's necks, but it seemed a subject of limited fascination.

He wondered how many of the students ahead of him were asleep, and decided that about half of them were; and he wished he could go to sleep himself, but he couldn't. He'd made the silly mistake of going to bed early the night before and as a result he was now wide awake and miserable.

"But," said Professor Dolohan, "if we disregard the contravention of probability arising in the statement that the positive absolute is less than absolutely positive, we are led to—"

Hooray! The bluebottle fly was back again, arising from its temporary concealment back of the desk. It droned upward to the ceiling, paused there a moment to preen its wings, and then flew down again, this time toward the back of the room.

And if it kept that spiral course, it would go past within an inch of Shorty's nose. It did. He went cross-eyed watching it and turned his head to keep it in sight. It flew past and—

It just wasn't there any more. At a point about twelve inches to the left of Shorty McCabe, it had suddenly quit flying and suddenly quit buzzing, and it wasn't there. It hadn't died and hadn't fallen into the aisle. It had just—

Disappeared. In midair, four feet above the aisle, it had simply ceased to be there. The sound it had made seemed to have stopped in midbuzz, and in the sudden sil-

since the professor's voice seemed louder, if not funnier.

"By creating, through an assumption contrary to fact, we create a pseudo-real set of axioms which are, in a measure, the reversal of existing—"

Shorty McCabe, staring at the point where the fly had vanished, said "Gaw!"

"I beg your pardon?"

"Sorry, professor. I didn't speak," said Shorty. "I . . . I just cleared my throat."

"—by the reversal of existing— What was I saying? Oh, yes. We create an axiomatic basis of a pseudo-logic which would yield different answers to all problem. I mean—"

Seeing that the professor's eyes had left him, Shorty turned his head again to look at the point where the fly had ceased to fly. Had ceased, maybe, to be a fly? Nuts; it must have been an optical illusion. A fly went pretty fast. If he's suddenly lost sight of it—

He shot a look out of the corner of his eye at Professor Dolohan, and made sure that the professor's attention was focused elsewhere. Then Shorty reached out a tentative hand toward the point, or the approximate point where he'd seen the fly vanish.

He didn't know what he expected to find there, but he didn't feel anything at all. Well, that was logical enough. If the fly had flown into nothing and he, Shorty, had reached out and felt nothing, that proved nothing. But, somehow, he was vaguely disappointed. He didn't know what he'd expected to find; hardly to touch the fly that wasn't there, or to encounter a solid but invisible obstacle, or anything. But—*what* had happened to the fly?

Shorty put his hands on the desk and, for a full minute, tried to forget the fly by listening to the professor. But that was worse than wondering about the fly.

For the thousandth time he wondered why he'd ever been such a sap as to enroll in this Logic 2B class. He'd never pass the exam. And he was majoring in paleontology, anyway. He liked paleontology; a dinosaur was something you could get your teeth into, in a manner of speaking. But logic, phooey; 2B or not 2B. And he'd rather study about fossils than listen to one.

He happened to look down at his hands on the desk.

"Gaw!" he said.

"Mr. McCabe?" said the professor.

Shorty didn't answer; he couldn't. He was

looking at his left hand. There weren't any fingers on it. He closed his eyes.

The professor smiled a professorial smile. "I believe our young friend in the back seat has . . . uh . . . gone to sleep," he said. "Will someone please try—"

Shorty hastily dropped his hands into his lap. He said, "I . . . I'm O.K., professor. Sorry. Did you say something?"

"Didn't you?"

Shorty gulped. "I . . . I guess not."

"We were discussing," said the professor—to the class, thank Heaven, and not to Shorty individually—"the possibility of what one might refer to as the impossible. It is not a contradiction in terms for one must distinguish carefully between *impossible* and *un-possible*. The latter—"

Shorty surreptitiously put his hands back on the desk and sat there staring at them. The right hand was all right. The left— He closed his eyes and opened them again and still all the fingers of his left hand were missing. They didn't *feel* missing. Experimentally, he wriggled the muscles that ought to move them and he felt them wriggle.

But they weren't there, as far as his eyes could see. He reached over and felt for them with his right hand—and he couldn't feel them. His right hand went right through the space that his left-hand fingers ought to occupy, and felt nothing. But still he could move the fingers of his left hand. He did.

It was very confusing.

And then he remembered that was the hand he had used in reaching out toward the place where the bluebottle fly had disappeared. And then, as though to confirm his sudden suspicion, he felt a light touch on one of the fingers that wasn't there. A light touch, and something light crawling along his finger. Something about the weight of a bluebottle fly. Then the touch vanished, as though it had flown again.

Shorty bit his lips to keep from saying "Gaw!" again. He was getting scared.

Was he going nuts? Or had the professor been right and was he asleep after all? How could he tell? Pinching? With the only available fingers, those of his right hand, he reached down and pinched the skin of his thigh, hard. It hurt. But then if he dreamed he pinched himself, couldn't he also dream that it hurt?

He turned his head and looked toward his left. There wasn't anything to see that way; the empty desk across the aisle, the

empty desk beyond it, the wall, the window, and blue sky through the pane of glass.

But—

He glanced at the professor and saw that his attention was now on the blackboard where he was marking symbols. "Let N ," said the professor, "equal known infinity, and the symbol a equal the factor of probability."

Shorty tentatively reached out his left hand again into the aisle and watched it closely. He thought he might as well make sure; he reached out a little farther. The hand was gone. He jerked back his wrist, and sat there sweating.

He was nuts. He had to be nuts.

Again he tried to move his fingers and felt them wriggle very satisfactorily, just as they should have wriggled. They still had feeling, kinetic and otherwise. But—He reached his wrist toward the desk and didn't feel the desk. He put it in such a position that his hand, if it had been on the end of his wrist, would have had to touch or pass through the desk, but he felt nothing.

Wherever his hand was, it wasn't on the end of his wrist. It was still out there in the aisle, no matter where he moved his arm. If he got up and walked out of the classroom, would his hand still be out there in the aisle, invisible? And suppose he went a thousand miles away? But that was silly.

But was it any sillier than that his arm should rest here on the desk and his hand be two feet away? The difference in silliness between two feet and a thousand miles was only one of degree.

Was his hand out there?

He took his fountain pen out of his pocket and reached out with his right hand to approximately the point where he thought it was, and—sure enough—he was holding only part of a fountain pen, half of one. He carefully refrained from reaching any farther, but raised it and brought it down sharply.

It rapped—he felt it—across the missing knuckles of his left hand! That tied it! It so startled him that he let go of the pen and it was gone. It wasn't on the floor of the aisle. It wasn't anywhere. It was just gone, and it had been a good five-dollar pen, too.

Gaw! Here he was worrying about a pen when his left hand was missing. What was he going to do about that?

He closed his eyes. "Shorty McCabe," he

said to himself, "you've got to think this out logically and figure out how to get your hand back out of whatever that is. You daren't get scared. Probably you're asleep and dreaming this, but maybe you aren't, and if you aren't, you're in a jam. Now let's be logical. There is a place out there, a plane or something, and you can reach across it or put things across it, but you can't get them back again.

"Whatever else is on the other side, your left hand is. And your right hand doesn't know what your left hand is doing because one is here and the other is there, and never the twain shall—Hey, cut it out, Shorty. This isn't funny."

But there was one thing he could do, and that was find out roughly the size and shape of the—whatever it was. There was a box of paper clips on his desk. He picked up a few in his right hand and tossed one of them out into the aisle. The paper clip got six or eight inches out into the aisle, and vanished. He didn't hear it land anywhere.

So far, so good. He tossed one a bit lower; same result. He bent down at his desk, being careful not to lean his head out into the aisle, and skittered a paper clip across the floor out into the aisle, saw it vanish eight inches out. He tossed one a little forward, one a bit backward. The plane extended at least a yard to the front and back, roughly parallel with the aisle itself.

And up? He tossed one upward that arced six feet above the aisle and vanished there. Another one, higher yet and in a forward direction. It described an arc in the air and landed on the head of a girl three seats forward in the next aisle. She started a little and put up a hand to her head.

"Mr. McCabe," said Professor Dolohan severely, "may I ask if this lecture bores you?"

Shorty jumped. He said, "Y— No, professor. I was just—"

"You were, I noticed, experimenting in ballistics and the nature of a parabola. A parabola, Mr. McCabe, is the curve described by a missile projected into space with no continuing force other than its initial impetus and the force of gravity. Now shall I continue with my original lecture, or would you rather we called you up before the class to demonstrate the nature of paraboloid mechanics for the edification of your fellow students?"

"I'm sorry, professor," said Shorty. "I was . . . uh . . . I mean I . . . I mean I'm sorry."

"Thank you, Mr. McCabe. And now"—The professor turned again to the blackboard. "If we let the Symbol *b* represent the degree of un-possibility, in contradistinction to *c*—"

Shorty stared morosely down at his hands—his *hand*, rather—in his lap. He glanced up at the clock on the wall over the door and saw that in another five minutes the class period would be over. He had to do *something*, and do it quickly.

He turned his eyes toward the aisle again. Not that there was anything there to see. But there was plenty there to think about. Half a dozen paper clips, his best fountain pen, and his left hand.

There was an invisible something out there. You couldn't feel it when you touched it, and objects like paper clips didn't click when they hit it. And you could get through it in one direction, but not in the other. He could reach his right hand out there and touch his left hand with it, no doubt, but then he wouldn't get his right hand back again. And pretty soon class would be over and—

Nuts. There was only one thing he could do that made any sense. There wasn't anything on the other side of that plane that hurt his left hand, was there? Well, then, why not step through it? Wherever he'd be, it would be all in one piece.

He shot a glance at the professor and waited until he turned to mark something on the blackboard again. Then, without waiting to think it over, without *daring* to think it over, Shorty stood up in the aisle.

The lights went out. Or he had stepped into blackness.

He couldn't hear the professor any more, but there was a familiar buzzing noise in his ears that sounded like a bluebottle fly circling around somewhere nearby in the darkness.

He put his hands together, and they were both there; his right hand clasped his left. Well, whatever he was, he was *all* there. But why couldn't he see?

Somebody sneezed.

Shorty jumped, and then said, "Is . . . uh . . . anybody there?" His voice shook a little, and he hoped now that he was really asleep and that he'd wake up in a minute.

"Of course," said a voice. A rather sharp and querulous voice.

"Uh . . . who?"

"What do you mean, who? Me. Can't

you see— No, of course you can't. I forgot. Say, listen to that guy! And they say we're crazy!" There was a laugh in the darkness.

"What guy?" asked Shorty. "And who says who's crazy? Listen, I don't get—"

"That guy," said the voice. "The teacher. Can't you— No, I forget you can't. You've got no business here anyway. But I'm listening to the teacher telling about what happened to the saurians."

"The what?"

"The saurians, stupid. The dinosaurs. The guy's nuts. And they say we are!"

Shorty McCabe suddenly felt the need, the stark necessity, of sitting down. He groped in darkness and felt the top of a desk and felt that there was an empty seat behind it and eased himself down into the seat. Then he said, "This is Greek to me, mister. Who says who's crazy?"

"They say we are. Don't you know—that's right, you don't. Who let that fly in here?"

"Let's start at the beginning," begged Shorty. "Where am I?"

"You *normals*," said the voice petulantly. "Face you with anything out of the ordinary and you start asking— Oh, well, wait a minute and I'll tell you. Swat that fly for me."

"I can't see it. I—"

"Shut up. I want to listen to this; it's what I came here for. He— Yow, he's telling them that the dinosaurs died out for lack of food because they got too big. Isn't that silly? The bigger a thing is the better chance it has to find food, hasn't it? And the idea of the herbivorous ones ever starving in these forests! Or the carnivorous ones while the herbivorous ones were around! And— But why am I telling you all this? You're normal."

"I . . . I don't get it. If I'm normal, what are you?"

The voice chuckled. "I'm *crazy*."

Shorty McCabe gulped. There didn't seem to be anything to say. The voice was all too obviously right, about that.

In the first place, if he could hear outside, Professor Dolohan was lecturing on the positive absolute, and this voice—with whatever, if anything, was attached to it—had come here to hear about the decline of the saurians. That didn't make sense because Professor Dolohan didn't know a pixilated pterodactyl from an oblate spheroid.

And— "Ouch!" said Shorty. Something had given him a hard thwack on the shoulder.

"Sorry," said the voice. "I just took a swat at that dratted fly. It lighted on you. Anyway, I missed it. Wait a minute until I turn the switch and let the darn thing out. You want out, too?"

Suddenly the buzzing stopped.

Shorty said, "Listen, I . . . I'm too darn curious to want out of here until I got *some* idea what I'm getting out from, I mean, out of. I guess I must be crazy, but—"

"No, you're normal. It's we who are crazy. Anyway, that's what they say. Well, listening to that guy talk about dinosaurs bores me; I'd just as soon talk to you as listen to him. But you had no business getting in here, either you or that fly, see? There was a slip-up in the apparatus. I'll tell Napoleon—"

"Who?"

"Napoleon. He's the boss in this province. Napoleons are bosses in some of the others, too. You see a lot of us think we're Napoleon, but not me. It's a common delusion. Anyway, the Napoleon I mean is the one in Donnybrook."

"Donnybrook? Isn't that an insane asylum?"

"Of course, where else would anyone be who thought he was Napoleon? I ask you."

Shorty McCabe closed his eyes and found that didn't do any good because it was dark anyway and he couldn't see even with them open. He said to himself, "I got to keep on asking questions until I get something that makes sense or I'm going crazy. Maybe I *am* crazy; maybe this is what it's like to be crazy. But if I am, am I still sitting in Professor Dolohan's class, or . . . or what?"

He opened his eyes and asked, "Look, let's see if we can get at this from a different angle. Where are you?"

"Me? Oh, I'm in Donnybrook, too. Normally, I mean. All of us in this province are, except a few that are still on the outside, see? Just now"—suddenly his voice sounded embarrassed—"I'm in a padded cell."

"And," asked Shorty fearfully, "is . . . is this *it*? I mean, am I in a padded cell, too?"

"Of course not. You're sane. Listen, I've got no business to talk these things over with you. There's a sharp line drawn, you know. It was just because something went wrong with the apparatus."

Shorty wanted to ask, "What apparatus?" but he had a hunch that if he did the answer would open up seven or eight new questions.

Maybe if he stuck to one point until he understood that one, he could begin to understand some of the others.

He said, "Let's get back to Napoleon. You say there is more than one Napoleon among you? How can that be? There can't be two of the same thing."

The voice chuckled. "That's all you know. That's what proves you're normal. That's normal reasoning; it's right, of course. But these guys who think they are Napoleon are crazy, so it doesn't apply. Why can't a hundred men each be Napoleon, if they're too crazy to know that they can't?"

"Well," said Shorty, "even if Napoleon wasn't dead, at least ninety-nine of them would have to be wrong, wouldn't they? That's logic."

"That's what's wrong with it here," said the voice. "I keep telling you we're crazy."

"We? You mean that I'm—"

"No, no, no, no, no. By 'we' I mean us, myself and the others, not you. That's why you got no business being here at all, see?"

"No," said Shorty. Strangely, he felt completely unafraid now. He knew that he must be asleep dreaming this, but he didn't think he was. But he was as sure as he was sure of anything that he *wasn't* crazy. The voice he was talking to said he wasn't; and that voice certainly seemed to be an authority on the subject. A hundred Napoleons!

He said, "This is fun. I want to find out as much as I can before I wake up. Who are you; what's your name? Mine's Shorty."

"Moderately glad to know you, Shorty. You normals bore me usually, but you seem a bit better than most. I'd rather not give you the name they call me at Donnybrook, though; I wouldn't want you to come there visiting or anything. Just call me Dopey."

"You mean . . . uh . . . the Seven Dwarfs? You think you're one of—"

"Oh, no, not at all. I'm not a paranoiac; none of my delusions, as you would call them, concern identity. It's just the nickname they know me by here. Just like they call you Shorty, see? Never mind my other name."

Shorty said, "What are your . . . ah . . . delusions?"

"I'm an inventor, what they call a nut inventor. I think I invent machines, for one thing. This is one of them."

"This is— You mean that I'm in a time machine? Well, yes, that would account for . . . uh . . . a thing or two. But, listen, if

this is a time machine and it works, why do you say you *think* you invent them? If this is one—I mean—”

The voice laughed. “But a time machine is impossible. It is a paradox. Your professors will explain that a time machine cannot be, because it would mean that two things could occupy the same space at the same time. And a man could go back and kill himself when he was younger, and—oh, all sorts of stuff like that. It’s completely impossible. Only a crazy man could—”

“But you say this *is* one. Uh . . . where is it? I mean, where in time.”

“Now? It’s 1948, of course.”

“In— Hey, it’s only 1943. Unless you moved it since I got on; did you?”

“No. I was in 1948 all along; that’s where I was listening to that lecture on the dinosaurs. But you got on back there, five years back. That’s because of the warp. The one I’m going to take up with Napo—”

“But where am I . . . are we . . . now?”

“You’re in the same classroom you got on from, Shorty. But five years ahead. If you reach out, you’ll see— Try, just to your left, back where you yourself were sitting.”

“Uh—would I get my hand back again, or would it be like when I reached into here?”

“It’s all right; you’ll get it back.”

“Well—” said Shorty.

Tentatively, he reached out his hand. It touched something soft that felt like hair. He took hold experimentally and tugged a little.

It jerked suddenly out of his grasp, and involuntarily Shorty jerked his hand back.

“Yow!” said the voice beside him. “That was funny!”

“What . . . what happened?” asked Shorty.

“It was a girl, a knockout with red hair. She’s sitting in the same seat you were sitting in back there five years ago. You pulled her hair, and you ought to’ve seen her jump! Listen—”

“Listen to what?”

“Shut up, then, so I can listen—” There was a pause, and the voice chuckled. “The prof is dating her up!”

“Huh?” said Shorty. “Right in class? How—”

“Oh, he just looked back at her when she let out a yip, and told her to stay after class. But from the way he’s looking at her, I can guess he’s got an ulterior motive. I

can’t blame him; she’s sure a knockout. Reach out and pull her hair again.”

“Uh . . . well, it wouldn’t be quite . . . uh—”

“That’s right,” said the voice disgustedly. “I keep forgetting you aren’t crazy like me. Must be awful to be normal. Well, let’s get out of here. I’m bored. How’d you like to go hunting?”

“Hunting? Well, I’m not much of a shot. Particularly when I can’t see anything.”

“Oh, it won’t be dark if you step out of the apparatus. It’s your own world, you know, but it’s crazy. I mean, it’s an—how would your professors put it?—an illogical aspect of logicity. Anyway, we always hunt with sling shots. It’s more sporting.”

“Hunt what?”

“Dinosaurs. They’re the most fun.”

“Dinosaurs! With a sling shot? You’re cra—I mean, do you?”

The voice laughed. “Sure, we do. Look, that’s what was so funny about what that professor was saying about the saurians. You see, we killed them off. Since I made this time machine, the Jurassic has been our favorite hunting ground. But there may be one or two left for us to hunt. I know a good place for them. This is it.”

“This? I thought we were in a classroom in 1948.”

“We were, then. Here, I’ll inverse the polarity, and you can step right out. Go ahead.”

“But—” Shorty said, and then “Well—” and then took a step to his right.

Sunlight blinded him.

It was a brighter, more glaring sunlight than he had ever seen or known before, a terrific contrast after the darkness he’d been in. He put his hands over his eyes to protect them, and only slowly was he able to take away and open his eyes.

Then he saw he was standing on a patch of sandy soil near the shore of a smooth-surfaced lake.

“They come here to drink,” said a familiar voice, and Shorty whirled around. The man standing there was a funny-looking little cuss, a good four inches shorter than Shorty, who stood five feet five. He wore shell-rimmed glasses and a small goatee; and his face seemed tiny and weazened under a tall black top hat that was turning greenish with age.

He reached into his pocket and pulled out a small sling shot, but with quite heavy rubber between the prongs. He said, “You can shoot the first one if you want,” and held it out.

Shorty shook his head vigorously. "You," he said.

The little man bent down and carefully selected a few stones out of the sand. He pocketed all but one, and fitted that into the leather insert of the sling shot. Then he sat down on a boulder and said, "We needn't hide. They're dumb, those dinosaurs. They'll come right by here."

Shorty looked around him again. There were trees about a hundred yards back from the lake, strange and monstrous trees with gigantic leaves that were a much paler green than any trees he'd ever seen before. Between the trees and the lake were only small, brownish, stunted bushes and a kind of coarse yellow grass.

Something was missing. Shorty suddenly remembered what it was. "Where's the time machine?" he asked.

"Huh? Oh, right here." The little man reached out a hand to his left and it disappeared up to the elbow.

"Oh," said Shorty. "I wondered what it looked like."

"Looked like?" said the little man. "How could it look like anything? I told you that there isn't any such thing as a time machine. There couldn't be; it would be a complete paradox. Time is a fixed dimension. And when I proved that to myself, that's what drove me crazy."

"When was that?"

"About four million years from now, around 1941. I had my heart set on making one, and went batty when I couldn't."

"Oh," said Shorty. "Listen, how come I couldn't see you, up there in the future, and I can here? And which world of four million years ago is this; yours or mine?"

"The same thing answers both of those questions. This is neutral ground; it's before there was a bifurcation of sanity and insanity. The dinosaurs are awfully dumb; they haven't got brains enough to be insane, let alone normal. They don't know from anything. They don't know there couldn't be a time machine. That's why we can come here."

"Oh," said Shorty again. And that held him for a while. Somehow it didn't seem particularly strange any more that he should be waiting to see a dinosaur hunted with a sling shot. The mad part of it was that he should be waiting for a dinosaur *at all*. Granting that, it wouldn't have seemed any sillier to have sat here waiting for one with a—

"Say," he said, "if using a sling shot on those things is sporting, did you ever try a fly swatter?"

The little man's eyes lighted up. "That," he said, "is an idea. Say, maybe you really are eligible for—"

"No," said Shorty hastily. "I was just kidding, honest. But, listen—"

"I don't hear anything."

"I don't mean that; I mean—well, listen, pretty soon I'm going to wake up or something, and there are a couple questions I'd like to ask while . . . while you're still here."

"You mean while *you're* still here," said the little man. "I told you that your getting in on this with me was a pure accident, and one moreover that I'm going to have to take up with Napo—"

"Damn Napoleon," said Shorty. "Listen, can you answer this so I can understand it? *Are* we here, or *aren't* we? I mean, if there's a time machine there by you, how can it be there if there can't be a time machine? And am I, or am I not, still back in Professor Dolohan's classroom, and if I am, what am I doing here? And—oh, darn it; what's it all about?"

The little man smiled wistfully.

"I can see that you are quite thoroughly mixed up. I might as well straighten you out. Do you know anything about logic?"

"Well, a little, Mr. . . . uh—"

"Call me Dopey. And if you know a little about logic, *that's your trouble*. Just forget it and remember that I'm crazy, and that makes things different, doesn't it? A crazy person doesn't have to be logical. Our worlds are different, don't you see? Now you're what we call a normal; that is, you see things the same as everybody else. But we don't. And since matter is most obviously a mere concept of mind—"

"Is it?"

"Of course."

"But *that's* according to Logic. Descartes—"

The little man waved his sling shot airily. "Oh, yes. But not according to other philosophers. The dualists. That's where the logicians cross us up. They divide into two camps and take diametrically opposite sides of a question, and they can't both be wrong. Silly, isn't it? But the fact remains that matter is a concept of consciousness, even if some people who aren't really crazy think it is. Now there is a normal concept of matter, which you share, and a whole flock

of abnormal ones. The abnormal ones sort of get together."

"I don't quite understand. You mean that you have a secret society of . . . uh . . . lunatics, who . . . uh . . . live in a different world, as it were?"

"Not as it were," corrected the little man emphatically, "but *as it weren't*. And it isn't a secret society, or anything organized that way. It just *is*. We project into two universes, in a manner of speaking. One is normal; our bodies are born there, and, of course, they stay there. And if we're crazy enough to attract attention, we get put into asylums there. But we have another existence, in our minds. That's where I am, and that's where you are at the moment, in my mind. I'm not really here, either."

"*Whew!*" said Shorty. But how *could* I be in your—"

"I told you; the machine slipped. But the logic hasn't much place in my world. A paradox more or less doesn't matter, and a time machine is a mere bagatelle. Lots of us have them. Lots of us have come back here hunting with them. That's how we killed off the dinosaurs and that's why—"

"Wait," said Shorty. "Is this world we're sitting in, the Jurassic, part of your . . . uh . . . concept, or is it real? It looks real, and it looks authentic."

"This is real, but it never really existed. That's obvious. If matter is a concept of mind, and the saurians hadn't any minds, then how could they have had a world to live in, except that we thought it up for them afterward?"

"Oh," said Shorty weakly. His mind was going in buzzing circles. "You mean that the dinosaurs never really—"

"Here comes one," said the little man.

Shorty jumped. He looked around wildly and couldn't see anything that looked like a dinosaur.

"Down there," said the little man, "coming through those bushes. Watch this shot."

Shorty looked down as his companion raised the sling shot. A small lizard-like creature, but hopping erect as no lizard hops, was coming around one of the stunted bushes. It stood about a foot and a half high.

There was a sharp pinging sound as the rubber snapped, and a thud as the stone hit the creature between the eyes. It dropped, and the little man went over and picked it up.

"You can shoot the next one," he said.

Shorty gawked at the dead saurian. "A struthiomimus!" he said. "Golly. But what if a big one comes along? A brontosaurus, say, or a Tyrannosaurus Rex?"

"They're all gone. We killed them off. There's only the little ones left, but it's better than hunting rabbits, isn't it? Well, one's enough for me this time. I'm getting bored, but I'll wait for you to shoot one if you want to."

Shorty shook his head. "Afraid I couldn't aim straight enough with that sling shot. I'll skip it. Where's the time machine?"

"Right here. Take two steps ahead of you."

Shorty did, and the lights went out again.

"Just a minute," said the little man's voice, "I'll set the levers. And you want off where you got on?"

"Uh . . . it might be a good idea. I might find myself in a mess otherwise. Where are we now?"

"Back in 1948. That guy is still telling his class what *he* thinks happened to the dinosaurs. And that red-headed girl— Say, she really is a honey. Want to pull her hair again?"

"No," said Shorty. "But I want off in 1943. How's this going to get me there?"

"You got on here, from 1943, didn't you. It's the warp. I think this will put you just right."

"You *think*?" Shorty was startled. "Listen, what if I get off the day before and sit down on my own lap in that classroom?"

The voice laughed. "You couldn't do that; you're not crazy. But I did, once. Well, get going. I want to get back to—"

"Thanks for the ride," said Shorty. "But— wait—I still got one question to ask. About those dinosaurs."

"Yes? Well, hurry; the warp might not hold."

"The big ones, the really big ones. How the devil did you kill *them* with sling shots? Or did you?"

The little man chuckled. "Of course, we did. We just used bigger sling shots, that's all. Good-by."

Shorty felt a push, and light blinded him again. He was standing in the aisle of the classroom.

"Mr. McCabe," said the sarcastic voice of Professor Dolohan, "class is not dismissed for five minutes yet. Will you be so kind as to resume your seat? And were you, may, I ask, somnambulating?"

Shorty sat down hastily. He said, "I . . . uh— Sorry, professor."

He sat out the rest of the period in a daze. It had seemed too vivid for a dream, and his fountain pen was still gone. But, of course, he could have lost that elsewhere. But the whole thing had been so vivid that it was a full day before he could convince himself that he'd dreamed it, and a week before he could forget about it, for long at a time.

Only gradually did the memory of it fade. A year later, he still vaguely remembered that he'd had a particularly screwy dream. But not five years later; no dream is remembered that long.

He was an associate professor now, and had his own class in paleontology. "The saurians," he was telling them, "died out in the late Jurassic age. Becoming too large and unwieldy to supply themselves with food—"

As he talked, he was staring at the pretty red-headed graduate student in the back row. And wondering how he could get up the nerve to ask her for a date.

There was a bluebottle fly in the room; it had risen in a droning spiral from a point somewhere at the back of the room. It reminded Professor McCabe of something, and while he talked, he tried to remember what it was. And just then the girl in the back row jumped suddenly and yipped.

"Miss Willis," said Professor McCabe, "is something wrong?"

"I . . . I thought something pulled my hair, professor," she said. She blushed, and that made her more of a knockout than ever. "I . . . I guess I must have dozed off."

He looked at her—severely, because the eyes of the class were upon him. But this was just the chance he'd been waiting and hoping for. He said, "Miss Willis, will you please remain after class?"

SANCTUARY

By H. H. HOLMES

The Commandoman was afflicted by one severe problem: he was in the wrong place—German-occupied territory—at the wrong time—after the Nazis had discovered his presence. He could think of only one answer; the professor had a better answer!

So there I was at dinner with a Gestapo chief.

It wouldn't be wise nor politic, not right now, to say where this took place. It wouldn't be wise nor possible, as you'll see later, to say when it took place. Temporally speaking, the events rambled. As to place, it should be enough to say that it was near the coast of quote unoccupied quote France, and I won't even say which coast. There's no point in tipping them off on where the new secret weapon is operating.

I'm afraid the names aren't true either, but that won't matter to you. One Gestapo chief is much the same as another to you, and you wouldn't know my Colonel von Schwarzenau from the Major Helm that they got in Zagreb the other day or the

Erich Guttart who met up with his near Lublin. And you probably wouldn't have heard of Dr. Norton Palgrave under his real name either. Your grandchildren will, though, whether they're majoring in science or history.

I'm giving my name straight, out of egotism, I suppose. You may have heard it—Jonathan Holding. No? Well, most of my stuff was privately printed in Paris. One volume in this country with new directions, "Apollo Mammosus." I was one of that crowd in Paris. The æsthetic Expatriate, that was me. I visited with Gertrude and Alice; I talked bullfighting with Ernest; I got drunk with Elliot; I sneered at everything American except the checks—you get the picture?

I wasn't in any hurry to get out of Paris

even after the war started and the embassy began making noises about neutrals clearing out to where they belonged. What the hell, we had the Maginot Line between them and us, didn't we? And Paris could never be captured. Even in 1870 she held out, and from all I'd read of that siege it sounded like interesting raw material. She'd stick it out, and I'd stick it out with her.

And then came May, 1940, and I found out.

A lot of people found out a hell of a lot in the month or two following that May. I'll lay you whatever odds you want that there hasn't been such a period for taking stock of truth since the start of Western civilization. I found out things about the world and the people in it, and I found out things about myself.

It wasn't the same Jonathan Holding that wound up on this coast, which shall still be nameless but which was for me, in a very true sense, the seacoast of Bohemia. (I've still got my habit of allusive quotations, I see.) How I got there, why my left hand is a finger the poorer and my brain a great many thoughts the richer, how I saved Jeannot from the Little Massacre at Eaux-des-Anges and how I failed to save old Pate-lin, how I accidentally made contact with the Free French—or Fighting French, as they are now by name and have always been in spirit—by asking at a bakery for my own particular hard-to-get kind of croissant, all that's a long story and a different one. Just the end of it has to be mentioned here to explain why I wound up at the dinner table with Colonel von Schwarzenau and why Dr. Palgrave baffled the Gestapo by laying—and creating—a black-faced ghost.

"We can get you on a ship," De Champs-fleuris told me. When I had last seen him he was some sort of an under-secretary in the foreign department. Now he looked as much at home in his crude fisher's garments and his stocking cap as ever he had in a white tie at a reception. "It is simple, that. Within eight days a fishing boat leaves which will not arrest itself until it is arrived at—" No, I'll x out that word; it would indicate the coast. Say England, Portugal, Africa, whatever strikes your fancy. "But you must live somewhere until then. The inn is not safe. An American—but, yes, you still retain the slightest of accents, my friend—living here to no purpose—We do not have tourists now. And still less safe to establish you with one of my friends, for I would imperil

not only you but him." He mused, and then his eyes glinted as I had once seen them glint when he remembered that a Rurittian Plysz took diplomatic precedence over a Graustarkian Glagolnik. "Dr. Palgrave," he said softly.

"Who's he?" I asked.

"You do not know of Dr. Palgrave, you an American? But then I ask myself how many Americans know of your fine surrealist work. Each man to his field, and the greatest in his field may be unknown save to himself. This Dr. Palgrave, he has a villa here, where his laboratory also finds itself."

"Research? What sort?"

De Champsfleuris' eyes twinkled. "Ah! That you will learn, my friend, do not fear. He is a strange one, that. I do not know myself, me, Henri-Marie de Champsfleuris, who can tell at a glance if a diplomat is authorized to make twice the concessions which he offers, I do not know if that one is one of the greatest men in the world or only one of the greatest fools. You are an artist; perhaps you will tell me."

"And he is—" I felt a little awkward as to how to put it. "He is one of us?"

"No—Alas, no. He has not awakened himself. He is as you were, my friend, a few short months ago. If he knew why you were here and what it is that you think to do when you leave here, I should not speak for his reception. But say only that you are an American from his old university. Say that you interest yourself—Are you acquainted with time theory?"

I nodded. "It's one of the few aspects of modern thought that we surrealists found material in."

"Good. Then talk to him of that. He will invite you to stay at the villa. Stay there, and do nothing until I send word to you through the postman Soisson."

It seemed a curious station on the underground railway, to spend a week in a luxurious villa taking time theory. But I had no suspicion then of how curious. I certainly never expected to meet, at my first dinner there, the head of the local Gestapo. Which brings us back now to when you came in.

Herr Oberst Heinz von Schwarzenau would be a fine name for one of the lean and leering Gestapo villains beloved of melodrama; but this jolly little man with the round, beaming face and the pudgy white hands hardly seemed at first glance to live up to his label. Dr. Palgrave wasn't too

well cast as the Mad Scientist, either. His hair was neatly combed and his eyes were mildly blinking. His dinner jacket hung on his thin stooped shoulders about as gracefully as it might have decorated a scarecrow. There was nothing colorful or eccentric about him but his conversation. That was enough.

"You may define a dimension as you will, my dear colonel," he observed over the fish. "You may quite correctly term it the degree of manifoldness of a magnitude or any other proper terminological gibberish your methodical mind chosés to employ. But a dimension is basically a measure of extent; and if extent is measurable, then extension is possible."

The colonel beamed. "I am not sure if you are playing with ideas, or simply with words. What is your opinion, Mr. Holding?"

I had to fight to keep from jumping each time he addressed me. I had to remind myself that my exploits in the Little Massacre had been strictly anonymous and that the Gestapo, so far as I knew, had no more information on me than that I was a practitioner of degenerate art but otherwise harmless. I was, I kept saying to myself, far safer here, as a sort of purloined letter in person, than anywhere else. But I have since wondered how the purloined letter itself felt about the Minister D—'s brilliant ruse. "What are ideas themselves but playing with words?" I said casually. "Can a wordless idea exist?"

Colonel von Schwarzenau frowned. "That is loose thinking," he said severely, in that overperfect English of his. "Ideas can exist for instance as mathematical formulas, or even as an unformulated series of sensory images. Please, Mr. Holding, more discipline in your thought." Having put me in my decadent place, he turned back to his host as Antoine brought on the braised meat. "But granting, sir, your possibility of extension in the time dimension, to what practical purpose do you propose to apply this theory?"

I had my marked suspicion that the meat was horseflesh, but Antoine had accomplished such wonders with a sauce bordelaise that I didn't give a damn. That sauce would have been enough to distract my attention from most conversations, but Dr. Palgrave's next remark jerked me back.

"Propose to? But, my dear colonel, I have applied it. My time machine is already in operation."

All of the colonel's plump body shook

with delight. "Ah, so? And what treasures do you bring us from the future, dear doctor? Ray guns perhaps, to aid us in perpetuating the New Order?"

"I must confess that I have so far succeeded only with the past, but—"

"The past? But there are treasures there, too. Perhaps you could fetch back and restore the honor and glory of France?" He chuckled long at this one.

"I . . . I have not as yet ventured into the machine myself. But I consider my efforts with the transportation of inanimate objects and of small animals to have proved my case completely. Iron sent into the past, left there for a year, and brought back has returned covered with rust, while it remained in the machine for only a minute of our time here. My first guinea pig died of old age through a mistake in my calculations. He was not yet adult when I put him in the machine; when I took him out thirty seconds later, he was dead of senile decay."

Colonel von Schwarzenau's chuckle became almost a giggle. "You are so symbolic, my dear doctor. It is you and not our friend here who should be the poet. Iron that rusts and guinea pigs that die of senile decay, always while seeking the past and ignoring the future. What better picture could you paint of the Third Republic?"

I held my temper. "And you offer—"

"Steel that never rusts and men who never age while their eyes remain fixed on the future, on the glory of the New Order. Steel and the bodies of men and always the future, the German future that must be the future of the world." For a moment he was in deadly earnest, but then the pudgy chuckle crept back into his voice. "Ah, it is good to be among representatives of your great democracy who still understand us. And such representatives. A scientist and a poet. A scientist who plays with time machines and a poet who plays with surrealism. There is your science and your art in a democracy. And yet you understand us, do you not, my friends? You are the admiring crowd who look up at the spiked wheels of the Juggernaut and cry, 'How beautiful is the goddess Kali today!' And because you see her beauty, she will spare you. Yes, you will be spared, and long may you be happy here in your haunted villa. Pursue your time machines and your surreal reality. *And do not interfere.*" There was a fleeting expression of grimness, then a broad beam.

Dinner went like that. We were treated like two not-too-bright but understanding Quislings who were fortunate to be in the good graces of the potent representative of the New Order. I boiled inside. I seethed so that I forgot the excellences of Antoine's miraculous makeshift cooking, even forgot the astonishing significance of Dr. Palgrave's claims. I wanted nothing but to kick out the Herr Oberst's shining white teeth, build them into a marimba, and play "The Battle Hymn of the Republic" on them.

But I had to be sensible. There was work for me to do. I had to put up with this until the fishing boat left. But Palgrave? He was staying here, living in the midst of this, putting up with it, liking it—

I couldn't help myself. I boiled over when Colonel von Schwarzenau made a regretful early departure for an evening tour of inspection. "How can you tolerate that man as a guest?" I burst out, pouring myself an outsize dose of my host's notable brandy. "You, a free American, how can you listen to—"

Dr. Palgrave smiled calmly. "Why should it bother me? Much of what he says may be true. I don't know. Politics are no concern of mine. But if I listen to him politely, he lets me work in peace. What more should I ask?"

I took a deep breath. "Politics," I said slowly, "are no concern of yours. I never thought to hear those words again. I thought they were as dead as the grandfather of all dodos. Man, have you any notion of what your friend the colonel stands for?"

"Young man," Palgrave said, with a certain quiet dignity, "I am a scientist. The petty squabbles of men hold no meaning for me. I have my laboratory here. It is a valuable possession, expensive and difficult to reconstruct. I shall certainly not risk it by bothering my head about matters that do not concern me. Shall we have Antoine bring us some more—well, let us continue to call it coffee, in the living room?"

I changed the subject when the coffee came. I couldn't risk insulting my host. And a curious phrase of the colonel's had recurred to my mind. "Your friend wished us happiness in this 'haunted villa.' What did he mean by that? Surely this is too modern a place to have its ancestral specters?"

Outside the large windows of the living room we should have seen the terrace and the sea, but the blackout curtains shut us into our narrow personal cell. From outside

a steady drumming noise beat into this cell, the percussive rhythm of machinery from the nearby Barras plant, origin of France's cheapest pleasure car in peace times and now given over to even De Champsfleuri knew not what. Dr. Palgrave hesitated before replying, and the steady thumps of manufactured death were loud in the room.

"Yes," he said at last. "This place is, by reliable reports, haunted. Or once was. One sole manifestation, which is, I gather from physical students, most unusual."

"Give," I said. "Or does your scientific mind reject it?"

"So many scientific minds have rejected what I have accomplished that I keep my own mind open, or try to. But this is a curious incident. It was before my tenancy, when the villa belonged to its original owner, the British novelist Uptonleigh. One day in 1937, I believe, in the midst of a house party, there suddenly appeared a ghost. A black-faced ghost, like a relic from one of the minstrel shows of my boyhood, clad in dirty dungarees and tattered tennis shoes. He spoke with an American accent and announced that he had just been treacherously murdered and had never expected heaven to be like this. The guests were sufficiently merry when he arrived, as was usually the case with Uptonleigh's guests, to enter into the spirit with the spirit, so to speak; if it chose to believe that heaven was one long party, they would give it one long party. The party lasted, I believe, for six weeks, almost equaling the record set by the wake which Uptonleigh held when his best novel was filmed. In that time the ghost assumed civilized attire, washed its face and grew a beard. The party might have gone on to a new record if the ghost had not vanished as abruptly as it appeared. It has never been seen since."

Dr. Palgrave related this preposterous narrative as calmly as he had told of his time machine, as calmly as he had accepted Colonel von Schwarzenau's manifestos of the New Order. I smiled politely. "Some drunken American who decided to crash a good party," I suggested.

Dr. Palgrave shook his head. "You do not understand. The ghost appeared suddenly from nowhere in the midst of them. One moment there was empty space, the next this black-face intruder. All accounts allow of no rational explanation."

The Barras works thumped. I stared at the thin-bearded scientist. Did nothing interest him, nothing perturb him but his

ventures into the past with senile guinea pigs and rusting iron? "It would be fun," I said, "to see your ghost meet your colonel."

Dr. Palgrave half smiled. "But we talk of these trivial matters when I have so much to show you, Holding. I want so very much to interest you in my experiments. I even dare hope that if I can convince you—"

There was an honest-to-God gleam in his eye. "Hold on," I said hurriedly. "You aren't aiming to graduate from guinea pigs to me, are you?"

"I should not have put it quite that way, but my thought was something of that nature."

"I'm afraid," I said politely, "I haven't any scientific aptitude. I'd never learn to handle the controls on a time machine. I can't even drive a car."

"Oh, that would be nothing. I have a remote-control panel so that I can operate the machine from such a distance that its field does not affect me. Contact with the field, you see, sets up a certain sympathetic parallel in the electronic vibrations of the blood stream; it is that that enables me to recall a living object from the past even if it has left the physical bounds of the machine."

"Then you have brought them back alive?"

"Guinea pigs, yes. But I have not had the opportunity to experiment with higher forms of life. How the field would affect the nervous system, whether there might be certain synaptic short circuits—Antoine refuses to make the attempt. And moreover he is so valuable a cook—But if I could interest you in the tremendous possibilities—"

I cursed Henri-Marie de Champsfleuries thoroughly up one side and down the other. It wasn't enough that he should play purloined letter with me under the nose of a Gestapo colonel. No; he has to expose me as guinea pig to a time-machine crackpot. I began to think it would have been a simpler and safer life to hide in hedges, sleep in haymows, and live off ditch water till that fishing boat sailed. I couldn't antagonize my host; but I was damned if I was going to have curious currents shot through me, whether they transported me in time or not. I was trying to frame a courteous excuse when I heard a thud that wasn't from the Barras works.

It was the steady rhythmic clump of trained marchers. They went to the back of

the house first, and I heard sullen curses and a sharp scream that must have come from Antoine. Then they came back, thudding across the terrace.

The Barras works thumped out death for all men. The feet on the terrace thumped an unknown but far more immediate peril. And Dr. Palgrave talked about the effect of a temporomagnetic field on the ganglia of guinea pigs.

The French windows opened and a squad of four men came in, in gray uniforms with swastika brassards. A corporal saluted us and said nothing. His hand was an inch from his automatic as the men searched the room.

Dr. Palgrave paid no attention to them. I started to speak, but I thought better of it when I caught the corporal's hard eye and saw his fingers twitch. I sat there listening to the details of the Palgrave remote-control time mechanism while the four men completed their wordless search.

The corporal saluted again in silence, and the searchers filed out. I stared at Dr. Palgrave.

"It is nothing," he said calmly. "You see we are near the Barras works. Not infrequently saboteurs are spotted near here. Perhaps even a Commando. These searches are necessary. To protest would imperil my position. Antoine sometimes objects to the treatment he receives, but I give him a bonus."

I was speechless. But no speech from me was necessary. Dr. Palgrave's remark was answered in a new voice, a fresh crude voice with a vivid Americanism I hadn't heard in years of self-exile.

"Shut up, you guys," it said, "and stay shut. *Fermy le buich or cuppy le gorge*, get me?"

I turned to gape at the ghost of the villa—dirty dungarees, tattered tennis shoes, blackened face and all.

"Why, you're the ghost," Dr. Palgrave observed, as one who notes an interesting but insignificant fact.

"Brother, it's you that's slated to be the ghost if there's any trouble." There was a sheen of steel in the figure's hand—an efficient-looking blade about six inches long that seemed to be all cutting edge.

I got it. "You're a Commando," I said. He snorted. "You civilians don't know from nothing. 'I'm a Commandoman.' I was put in my place again. 'But, look, boys. You talk English, You talk it kind of funny

—classylike—but tell me: Are you Americans?"

I nodded.

"Is that a relief! I didn't do so good in French class; I was better at rough-and-tumble. And I guess I don't need this either, brothers." He sheathed the glinting six inches. "But get this: You've got to hide me."

"Why?" Dr. Palgrave asked imperturbably.

Blackened eyebrows lifted on the blackened face. The Commandoman jerked a thumb at Palgrave. "Why?" he says, "Is he nuts?"

"He runs the joint," I said. "I'm just here pretty much the way you are."

"Look, brother," he addressed Dr. Palgrave. "I got cut off from the Commando. That patrol missed me by a flea's eyelash and I ducked in here after they'd gone. But they'll be back. They always search twice; it's a rule. And you've got to hide me."

"Why?" Dr. Palgrave repeated.

"Why? You're an American. Or are you?"

"I am, sir, a citizen of the world of science."

The distant thud of returning footfalls was barely audible over the Barras thumpings.

"Look." The Commandoman's hand rested on his sheath. "You listen to sense or you listen to Betsy. It don't make no matter if I get killed. What the hell, every time you black your face you say to yourself, 'Make-up for the last act.' But I'm the dope they made memorize the plans for sabotage at the works here. I've got to get through to a certain Frenchman with that message. And if they get me there's always the chance I'll crack under the games they play. So you've got to stall them and hide me some way."

The thudding steps were on the terrace now. I knew nothing of the house. I was helpless, but I spoke pleadingly to my host: "Dr. Palgrave, these men, these friends of yours, have declared war against the citizens of your world of science as bitterly as against Poles or Czechs. This Commandoman is fighting your own scientific battle. You must—"

Dr. Palgrave indicated a small door across the room. "In there," he said tersely.

Herr Aberst Heinb von Schwarzenau was with the squad this time. He plumped his pudgy body into the most comfortable chair and come straight to the point. "My dear Dr. Palgrave, I assure you that I regret in-

conveniencing you. But I fear that this charming, if haunted, villa of yours is harboring a democratic dog of a Commandoman."

Dr. Palgrave said nothing. He sat at his desk and fiddled nervously with some gadgets in front of him. I spoke up. "Your men searched here once, Herr Oberst."

He glared at the men, and there was terror beneath their impassivity. "They did so. They searched badly. A loyal peasant has informed us, after only the slightest persuasion, that he saw the pig-dog enter this house."

I shrugged. "Dr. Palgrave and I have been sitting here, drinking our . . . coffee, and talking about the ghost. The only interruption was your searching squad." Dr. Palgrave still said nothing.

"So? I begin to understand now the purpose of that ghost legend. How was the ghost described? Black-faced and clad in dirty dungarees and tattered tennis shoes? So that if a servant should see one of these Commando devils here, he might think only, 'Aha! The ghost.' Most ingenious. Most ingenious. We have caught a glimpse of this man, and how well he would serve as your ghost— And you, Dr. Palgrave. I had thought you so faithful an adherent of the New Order."

Dr. Palgrave's fingers twitched at gadgets. "You know me, colonel," he said, almost pitifully. "Can you imagine me a participant in a plot to give sanctuary to Commandos?"

"Frankly, no." The colonel smiled. "But once before in my life I misjudged a man. It can happen; I admit it. That one died slowly, and when he died he was no longer a man—" He chuckled. "But I could think of a more appropriate emasculation for you, dear doctor. If you do not reveal to us the hiding place of this Commando dog—I no longer trust the searching abilities of these dolts—I shall take great personal pleasure in slowly and thoroughly smashing every piece of scientific apparatus in this villa."

Dr. Palgrave started to his feet with a little choking gurgle of "No—"

"But, yes, I assure you. I shall give you fifteen seconds, dear doctor, to make up your mind. Then I shall proceed happily to the task of demolition. I tolerated your eccentric researches while they amused me and you were faithful. Now the devil take them."

"Fifteen seconds—"

Colonel von Schwarzenau glanced up from his wrist watch. "Five are gone."

The Barras thumping rose crescendo in the silence. If our Commandoman escaped, that lethal thumping might stop forever. If he were taken—

"Ten are gone," the colonel announced.

Dr. Palgrave rapped nervously on his desk. He toyed with dials and verniers. He plucked at his lower lip.

"Fifteen—"

Silently, Dr. Palgrave rose and pointed at the small door. I started from my chair, then sank back as the armed squad passed me. I could do nothing. There was ashen dread on Dr. Palgrave's face, and a grin of ugly self-satisfaction on that of the colonel. The corporal jerked open the door.

A stranger stepped out. He was a good-looking young man with a curly red beard, faultlessly dressed in Saville Row white flannels, a subtly figured white shirt, and a professionally arranged ascot. His skin glowed with clean health.

Colonel Heinz von Schwarzenau stared speechlessly. The corporal peered into the room and made a flabbergasted announcement in German to the effect that there were no facilities there for washing or changing clothes, nor any sign of the Commando. One little glimmer of hope shone in von Schwarzenau's eyes. He stepped forward and tugged at the beard.

The stranger said, "Ouch!"

Dr. Palgrave smiled. "I could not resist the joke, my dear colonel. I happened to have another American guest whom you had not yet met. The temptation to build a dramatic introduction was too much for me. But now if you wish to search the house personally for your mythical Commandoman, I shall be glad to be of any assistance that I can. You know my loyalty to you and your friends."

The stranger and I sat silent under the watchful eyes of the corporal while von Schwarzenau searched the house. He returned, glowering: "Pigs!" he snorted. "Weakling offspring of impure dogs! You bring me information and what is the result! You allow that one makes a fool of me!"

Not until the footsteps were dead in the distance did anyone speak. Then the stranger burst out, "What goes here, brothers? Where have I been and how did I get back here and— I thought I was dead and was that a heaven for you!"

I began to understand. "Then you—"

"Yes, Holding," Dr. Palgrave explained. "Our friend here is indeed the ghost. I

realized that the exact description could not be coincidental. And if he was the ghost, then my time machine must be successful with a human traveler. It must be I who sent him back to Uptonleigh's classic party. And the ghost changed in those six weeks, you will recall, cleaned up and grew a beard. If I could bring him back, he would be completely unrecognizable to von Schwarzenau. So I sent him into my traveling cabinet."

"But how— You didn't go near it."

"I explained to you that it operated by remote control. I sent him on his journey and fetched him back under von Schwarzenau's very eyes, while he thought I was indulging in mere nervous twiddling."

"Brother," the Commandoman said, "I had you tagged all wrong. You're a right guy, after all, and I'm sorry I waved Betsy at you. You've done a good deed today for the United Nations."

"The United Nations?" Dr. Palgrave blinked. "Oh, yes. Yes— But what is important is that I have proved that my time machine is a practical device capable of carrying human life."

The Commandoman gulped. "You mean I was a guinea pig?" His hand sneaked toward Betsy, but he dropped it again. "Who cares? You saved me, that's the main thing."

"That colonel," Dr. Palgrave spoke reflectively, "he meant what he said—"

"They mostly do, them boys."

"He really meant that he would wantonly destroy all my invaluable apparatus merely to— And I thought that he had a respect for science, an understanding of my—"

It was my chance to strike. "You get it now, Dr. Palgrave? You've been his dupe, his court jester. And when amusement palled, neither you nor your work meant a thing to him. All your research would have been wiped out without a moment's compunction."

"The . . . the devil—" Dr. Palgrave gasped.

I tried not to smile. "You've learned it now, sir. You've learned that your holy world of science isn't sacred to them, doesn't stand apart from the rest of the world. There are no islands any more. There never have been. No man is an island, entire of himself. And every man who is not a part of their black force is going to find himself and all that he holds holiest destroyed when it suits their convenience. One by one, we learn our lesson. Some of us had sense and soul enough to learn it as part of mankind

from seeing the sufferings of others; some, like you and me, had to be pushed around personally to learn it. But every lesson learned, from whatever motive, is one more blow aimed at their heart."

"That's telling him, brother," said the Commandoman.

Dr. Palgrave stood erect, and his eyes did not blink. "Your next step, sir, I believe, will be to resume your former condition of grime. I shall aid you in any way possible. Consider this house your sanctuary, and inform those who follow after you, if you are fortunate enough to return, that this villa is theirs."

"Thanks, brother. I'll do that little thing."

"And tell your commander of this experience. He will doubtless not believe you, but insist that he communicate with the general staff. Take these formulas, and see that they reach the finest physicists in England. They will at least understand the possibility of what I am doing. Then we can arrange some communication and figure out a method for practical applications. I can already foresee, for instance, how futile would be advance secret-service notice of a Commando raid if the Commando moved back to do its damage the day *before* it landed here."

The Commandoman swung to his feet. "Me," he said, "I don't understand a word

of this. I know something screwy has happened and I got away from the Gestapo, and was I ever on a sweet party! But I'll do what you say, brother." He raised two spread fingers.

My own part in the experiments for the next week and the details of my escape in the fishing boat are not essential to this narrative. I can best conclude it by a newspaper dispatch which I read when last in London, and the comment thereon by one of my friends in higher military circles.

VICHY, June 23.—The Vichy government announces the execution of twelve hostages for the recent sabotage at the Barras plant near *** and the murder of Colonel Heinz von Schwarzenau on June 12th. "The Jews and Communists involved in the treachery," the announcement reads, "have not yet been apprehended. It is believed that they were aided and reinforced by a party of Commando troops. Twelve more hostages will be shot daily until they are under arrest."

"But you know, old boy," young Wrothbottam insisted, "that's devilish peculiar. There was no Commando raid at *** on the twelfth. And what's odder yet, there was one on the thirteenth. Reported operations successful, but there hasn't been a word about it in the Vichy dispatches."

EVOLUTION DESIGNS INSTINCT-PATTERNS TOO

It's a common and unhappy fact that the finest race horse, if he breaks a leg, must be killed as incurable. But any mongrel pup can readily be cured if a leg is broken, if he's given only a minimum of care.

It isn't because a race horse with a once-broken leg can't win races any more that they destroy them, either—a highly bred horse has value as a breeder even after his racing days are over. Trouble is, the evolution of the horse was such that he will not and cannot learn to keep his weight off an injured leg. Further, supporting his weight artificially in a sling won't work, because it causes fatal internal injuries due to the pressure of the sling, long before the leg heals.

The mutt, on the other hand, immediately and instinctively takes his weight off the bad leg, and keeps it off until healing is complete—even, actually, long after, since

the habit of favoring it is quickly established.

There's good evolutionary reason behind that. No animal in its right mind is anxious to attack a wound-maddened wolf, or any other powerful, heavily armed carnivore. It's no doubt easier to kill a wolf with a broken leg than a whole wolf—but there's no percentage in taking the fang-slashing punishment wolf-killing involves when much easier game is to be had.

Now a horse with a broken leg, on the other hand—that's any carnivore's meat. He can't run, he can't kick, and he never was equipped for tooth-and-fang fighting. In the ages of equine evolution, it never did a horse any good to favor a broken leg—he died, anyway. In the horse family, broken-leg favoring had no survival value; in the dangerously toothed and savage dog family, it did.

So It's Impossible—

SINCE air at atmospheric pressure is a very excellent conductor of electricity, if you just get an arc started, the air itself limits the possible voltage you can develop in a given size of generator. One inch of air gap breaks down under twenty-five thousand volts; one million volts will jump across a forty-inch gap; anything less than a six-foot gap to insulate a million-volt potential would be plain suicide. Therefore, it is impossible to build a million-volt generator less than six feet in its smallest dimension; a two-million-volt generator less than twelve feet long would be equally unreliable dynamite, and no engineer would comfortably contemplate any air-insulated mechanism that small.

The argument is obviously sound—one I fully subscribed to.

Donald W. Kerst of the University of Illinois has, with a bit of pure intellectual brilliance, knocked that whole line of argument into a *non sequitor*. He has an original laboratory hand-made model of a gadget, built purely to demonstrate the principle, not for real usefulness, that has a *maximum* dimension under three feet, and a minimum dimension less than one foot, which develops two million three hundred thousand volts. It's a size any home experimenter could cook up, and for that matter its inherent simplicity is such that too darned many home experimenters are apt to try cooking it up. The fact that it isn't big and impressive makes it rather easy to overlook the fact that only about a score of institutions in the world have equipment capable of producing the terrible radiation that little scrap-iron-and-bell-wire contraption turns out.

The General Electric Co. has helped Dr. Kerst with a "pilot plant" size model—an

intermediate stage between the demonstration model—which is only twice as potent as those "giant million-volt X-ray machine" types—and the full-scale laboratory research tool planned. The intermediate model is sizable—weighs three and a half tons—but is still so small it was arranged on a sturdy bench to bring it to a comfortable working height. It develops twenty million volts, twice as great as any previous equipment was ever designed to go—and considerably more than twice as much as any previous equipment has been able to go consistently.

What twenty million volts means is definitely hard to realize. It does not develop it in the form of two binding posts, one labeled "Plus twenty million" and the other "Minus," for one thing; if it did, that pair of posts would have to be one hundred twenty inches apart as a minimum. The betatron generator produces a stream of electrons moving with a velocity equivalent to a fall through a twenty-million-volt field. Each individual electron is carrying very much more energy than an atom of radium releases when it explodes.

The full-scale betatron now being made is designed to produce one hundred million volt electrons. This energy level exists in nature in cosmic ray bursts. The unequaled violence of the disruption of the U-235 nucleus passes the two-hundred-million-volt mark; no other atomic explosion known approaches the one-hundred-million-volt level. The mechanism of the betatron is such that currents measured in amperes, not billionths of an ampere, could be produced at that voltage level—admittedly only in brief but appalling bursts of power—with results not presently predictable.

THE EDITOR.

TAKE UP PELMANISM

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The Grasshopper Mind

YOU know the man with a "Grasshopper Mind" as well as you know yourself. His mind nibbles at everything and masters nothing.

At home in the evening he tunes in the wireless—gets tired of it—then glances through a magazine—can't get interested. Finally, unable to concentrate on anything, he either goes to the pictures or falls asleep in his chair. At the office he always takes up the easiest thing first, puts it down when it gets hard, and starts something else. Jumps from one thing to another all the time.

There are thousands of these people with "Grasshopper Minds" in the world. In fact they are the very people who do the world's most tiresome tasks—and get but a pittance for their work. They do the world's clerical work, and the routine drudgery. Day after day, year after year—endlessly—they hang on to the jobs that are smallest-salaried, longest-houred, least interesting, and poorest-futured!

What Is Holding You Back?

If you have a "Grasshopper Mind" you know that this is true. And you know why it is true. Even the blazing sun can't burn a hole in a piece of tissue paper unless its rays are focussed and concentrated on one spot! A mind that balks at sticking to one thing for more than a few minutes surely cannot be depended upon to get you anywhere in your years of life!

The tragedy of it all is this: You know that you have within you the intelligence, the earnestness, and the ability that can take you right to the high place you want to reach in life! What is wrong? What's holding you back? Just one fact—one scientific fact. That is all. Because, as Science says, you are using only one-tenth of your real brain-power!

What Can You Do About It?

What can you do about it? That is the question you are asking yourself. Here is the answer.

Take up Pelmanism now! A course of Pelmanism brings out the mind's latent powers and develops them to the highest point of efficiency. It banishes such weaknesses and defects as Mind-Wandering, Inferiority, and Indecision which interfere with the effective working powers of the mind, and in their place develops strong, positive, vital qualities such as Optimism, Concentration, and Reliability, all qualities of the utmost value in any walk of life.

Pelmanism is an education not from outside but from within you. It makes all other education fruitful because it shows you how to use it. Unlike any other form of training, Pelmanism helps you to use all your power, your knowledge and your strength of mind and character, while other men can only use a fraction of the dormant ability that they were born with.

Pelmanism is quite easy and simple to follow. It takes up only a short time daily. The books are printed in a handy "pocket size," so that you can study them when travelling, or in odd moments during the day. Even the busiest man or woman can spare a few minutes daily for Pelmanism, especially when minutes so spent bring in such rich rewards.

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FOR more than forty years now the Pelman Institute has been showing men and women how to cultivate their minds. During this period hundreds of thousands of men and women have practised the Pelman exercises, and by this means have increased their mental capacity and efficiency to an almost unbelievable extent. They have learned, as a result of Pelmanism, how to live fuller, happier, more interesting and more successful lives.

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| Feeling of Inferiority | Weakness of Will |

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- | | |
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| —Concentration | —Courage |
| —Observation | —Will-Power |
| —Judgment | —Reliability |
| —Self-Control | —Presence of Mind |

You can develop and strengthen all these by a course of Pelmanism.

The present dominant aim for every man and woman must be to show a courageous, confident, well-equipped mental front. This assured, then all else will be achieved, and the world has no more proven method than Pelmanism to attain this end.

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